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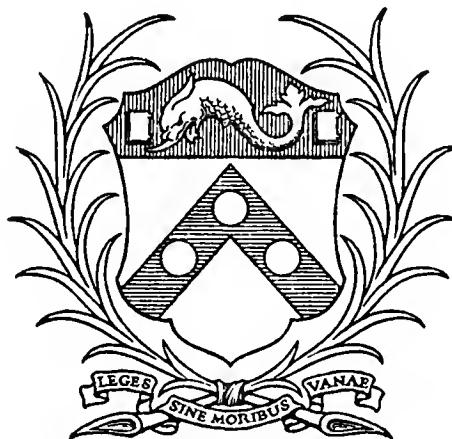
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William H. Keating and the Beginning of Chemical Laboratory Instruction in America

WYNDHAM D. MILES*

IN the Edgar Fahs Smith Memorial Collection in the History of Chemistry there is a small notebook, of the type used by the school children of Philadelphia 125 years ago, which contains an inventory of the chemicals and apparatus owned by the Chemistry Department of the University of Pennsylvania in 1825, 1826, and 1836.¹ The notebook is of considerable historical interest, for it gives a complete picture of one of the earliest student laboratories in an American college and adds useful information to our knowledge of the beginnings of chemistry in this country.

The use of laboratories designed for the purpose of teaching was the third and final stage in the evolution of chemical education. The earliest instruction was done by lectures alone, without the benefit of the demonstrations or student participation so routine today. The second stage, in which the professor actually showed students the phenomena and materials of chemistry, was practiced occasionally in the latter part of the 17th century but became a standard technique of the teacher only toward the end of the 18th century. The last stage, in which the student learned chemistry by working in a laboratory, was not developed until around 1800 and did not become widespread until the middle of the century.

The earliest student laboratory in America seems to have been that opened by William James Macneven at the College of Physicians and Surgeons of New York between 1810 and 1820. The second was initiated by William Hypolitus Keating at the University of Pennsylvania in 1822. Macneven's laboratory was designed for special, advanced (i.e., medical) students, while Keating's laboratory was open to any student in the University. The latter, therefore, may be looked upon as the forerunner of the present-day college laboratories. Neither Macneven nor Keating

* The Pennsylvania State College.

was following an original idea in opening a laboratory for his students; both men had received their professional education in Europe, where they had learned to appreciate the advantages of laboratory instruction. They deserve considerable credit, however, for the initiative they showed in introducing the method into the United States. The practice they inaugurated was accepted only slowly by other American schools, but in time became one of the standard means of teaching the science.

Keating was born in Wilmington, Delaware, August 11, 1799, of French and Irish parentage.² After attending the University of Pennsylvania, where he graduated (B.A.) in 1816, he sailed for Europe to study at the School of Mines in Paris and to visit the mining establishments of France, Germany, The Netherlands, Switzerland, and the British Isles. When he returned to America in 1821, he was one of the most thoroughly trained mineralogists and mining engineers in the country. He published an admirable little monograph, *Considerations upon the Art of Mining, to Which are Added, Reflections on its Actual State in Europe, and the Advantages Which Would Result from an Introduction of this Art into the United States* (Philadelphia, 1821).³ This early American work on mining was a creditable production for a young man only 21 years old, but whether or not it actually gave any impetus to the development of domestic mining is a question which unfortunately cannot be answered at the present time.

A part of his time the young scientist spent in making geological tours to investigate interesting formations and to collect mineral specimens. On some of these journeys he was accompanied by Lardner Vanuxem, who was also a mineralogist. In 1821 and 1822 the two men toured New Jersey and New York and collected minerals which they analyzed and reported in scientific journals.⁴

In the winter of 1821-22, Keating learned that the Trustees of the University of Pennsylvania were searching for a professor of chemistry and mineralogy to fill a vacant chair in the Faculty of Natural Science. He wrote to the board requesting that he be considered for the position and giving references to prove his qualifications. The Trustees were favorably impressed, and on March 5, 1822, Keating was elected Professor of Mineralogy and

Chemistry as Applied to Agriculture and the Arts. Among the preparations which the new professor made for his first series of lectures was the publication of a *Syllabus of a Course of Mineralogy and Chemistry, as Applied to Agriculture and the Arts.*⁵ The *Syllabus* was intended to serve as an advertisement of the lectures and as an outline to guide the students. Prospective scholars were told, "The Course will commence on Friday the 8th of November next, and be continued every Wednesday and Friday evening, at seven o'clock. Tickets at 12 dollars, to be had at the University."⁶

The course contained 30 lectures arranged in a logical pattern. If the students wished, they could supplement the lectures with practical work in the laboratory under the professor's supervision:

The Trustees of the University having fitted up a laboratory for the use of the chair of "Mineralogy and Chemistry, as applied to Agriculture and the Arts," six private students will be received, and instructed in the various branches of Chemistry applied to the Arts, and to Analysis, on the plan of the most approved European institutions.⁷

Keating's laboratory for college students was the most interesting feature of his course. It has a bearing on a subject which has been discussed many times by chemists: "Who started the first laboratory for chemistry students?" However, I believe there is little point in trying to set a definite date for the beginning of laboratory teaching. The present method of teaching by doing is the product of evolution, and did not spring up overnight. Keating himself learned laboratory technique in the School of Mines in Paris where, he said, "an excellent chemical laboratory is annexed to the institution, in which the students are enabled to enter as deeply into the science of docimasy as their inclination prompts, or their talents permit them."⁸

The apparatus and chemicals in the laboratory were supplied by, and remained the property of, Keating—a practice which, fortunately for the finances of professors, has been abandoned. An inventory was made in 1825 and again in 1826, the latter being more informative since it included the price which Keating paid for the material. The equipment was sufficient for the purpose, but by no means did it contain a complete stock of the chemicals and apparatus available at that time. Many of the

items, such as opium and other alkaloids, gums, and vegetable dyes, have little laboratory use at present and are seldom found in student laboratories, while others, like platinum and its salts, are now too expensive for common use. On the whole, Keating's laboratory would be inferior to those found today in our better high schools, and could not begin to compare with our college laboratories.

In the spring of 1826, Keating left the University to engage in silver mining in Mexico. It being inconvenient to remove his apparatus from the University, he made an inventory and offered to sell the material to the Trustees. After a span of two years, during which time the equipment was used by Robert M. Patterson, Keating's successor, the Trustees decided to purchase it for the sum of approximately \$600.⁹

The early growth of the laboratory was rather slow. In 1836, ten years later, another inventory showed that comparatively little new equipment had been acquired since Keating's time. The most significant innovation of the latter inventory was the division of the chemicals into inorganic and organic, a division which reflected the phenomenal growth of organic chemistry in the 1820's and 30's.

The later growth of the laboratory, particularly in the days following the Civil War when laboratory instruction became the accepted practice, was quite rapid; and today the equipment and chemicals in the University's Department of Chemistry are worth hundreds of times the value that they had in Keating's time.

One of the characteristics of Keating's nature was a restlessness that drove him from project to project throughout his entire life. He had been Professor of Chemistry at the University little more than a year when Major Stephen Long, USA, an explorer of the West, was ordered by the War Department to organize an expedition to make a general survey of what is now Minnesota and lower Manitoba. Long was then in Philadelphia, where he quickly obtained the services of Thomas Say, zoologist, Samuel Seymour, an artist, and Keating, mineralogist and geologist. Keating left his post at the University so hurriedly that he was out of the city and on the Cumberland Road headed west before the Trustees received word of his departure. The party traveled

by horseback and canoe into Illinois, Minnesota, and as far north as Lake Winnipeg; then they turned south and came back through the Great Lakes.

Keating reached home on October 26, 1823, after an absence of six months and a journey of 4500 miles. He immediately assembled the notes of the party for publication, and in the fall of 1824 there appeared a *Narrative of an Expedition to the Source of St. Peter's River, Lake Winnepeek, Lake of the Woods, &c. &c. Performed in the year 1823, by Order of The Hon. J. J. Calhoun, Secretary of War, under the Command of Stephen H. Long, Major U.S.T.E. Compiled from the Notes of Major Long, Messrs. Say, Keating, and Colhoun, by William H. Keating, A.M. &c. Professor of Mineralogy and Chemistry as Applied to the Arts, in the University of Pennsylvania; Geologist and Historiographer to the Expedition.*¹⁰ The *Narrative* was widely read; it was reprinted in London in 1825 and in 1828, and was translated into German and published at Jena in 1826.

The party came in contact with the Indians of the region before their customs changed under the influence of the white man. For this reason, the part of the *Narrative* which has had the most lasting value is that which describes the culture of the natives. Keating made numerous geological observations along the way, but since the expedition moved rapidly over its route, he had time for only a cursory inspection. Consequently the *Narrative* contains no basic contributions to geology, but it did include many observations which were of value at the time.

In the winter of 1823-24, the "Franklin Institute of the State of Pennsylvania for the Promotion of the Mechanic Arts" was conceived and organized by Keating and a fellow Philadelphian, Samuel Merrick. This Institute, which is internationally known today, which owns a famous museum of science, and which publishes one of the oldest scientific journals in the United States, stemmed from the attempts of the two young men to establish a school in which mechanics could learn the principles of science.

Keating was struck with the idea of bringing science down from an erudite plane to the level of the working man shortly after being elected professor of applied chemistry at the University. Whatever the source of his inspiration, he was led to visualize an institution in which mechanics could learn the

principles of applied science. He called a public meeting, which he hoped would be the start of an organized movement for such a school, but his effort ended in failure. Unable to arouse enthusiasm or financial support for his plan, Keating laid aside the idea until the autumn of 1823, when he met Samuel Merrick. Merrick had tried to join a society for mutual instruction conducted by the mechanics of the city, but had been blackballed. Thereupon he decided to start a society of his own, and he sought out Keating for aid. This was the start of the Franklin Institute. Keating and Merrick called a meeting of young men they thought would cooperate, and this small meeting was so successful that they called a public meeting in February, 1824, at which more than 400 citizens assented to membership. A month later, the Institute received its charter from the legislature. The object of the Institute was to promote and encourage manufactures and the mechanic and useful arts by popular lectures on science, by the formation of a collection of minerals and models, by the establishment of a library, by examining new inventions, and by offering premiums for inventions worthy of encouragement.

Keating served on many committees of the Institute, but his most important contribution was the applied chemistry course that he taught to the mechanics of the town from 1824 until 1826. The text which Keating probably used was the tenth American edition of Jane Marcet's *Conversations on Chemistry* (Philadelphia, 1824), which he edited. Marcet's *Conversations* was the most popular chemistry book published in the 19th century, and was widely used in the United States. Keating's contributions were confined to 35 scattered footnotes signed "K." Since the book was basically sound, the notes were of no great importance and simply pointed out minor errors and mentioned recent developments.

Sometime in 1826-27, Keating went to Mexico to act as an engineer in the silver mines of San José near Temascaltepec. In his spare time he studied natural history, collected shells and plants, and joined Joel Poinsett, the American minister to Mexico, in assembling a large collection of Indian relics which they later gave to the American Philosophical Society.

He returned from Mexico in 1830 and thenceforth turned from science to politics, law, and railroads. He was a member of the

House of Representatives of the state of Pennsylvania from 1832 to 1834.¹¹ In the latter year he was admitted to the bar, and was said to have built up a large practice. During this period he also became connected with the railroad interests of the state, and in 1832 was elected to the presidency of the Little Schuylkill Navigation, Railroad and Coal Company.

Keating was retained as counsel by the Reading Railroad, and in 1838 was sent to the state capitol to promote the passage of a bill permitting the company to construct branch lines and to extend the road. His mission proved successful, and the legislature authorized the Act, but the construction work on the new lines caused a heavy drain upon the treasury of the company and reduced its resources to such an extent that by 1839 it was forced to seek a loan. Efforts to raise the money in America were unsuccessful, so Keating was sent to Europe to raise funds by the sale of stocks and bonds. He entered into negotiations with a London firm and seemed on the way to success. But before the transactions were completed, he died suddenly on May 17, 1840, in London.¹²

In many ways Keating was typical of the American scientists of his time. His restless nature and versatility seemed to have been opposed to specialization, and he did not apply himself to one field but spread his talents. In the history of American chemistry, however, he holds a secure place as one of the innovators of laboratory instruction.

Appendix

The notebook in the Smith Memorial Collection contains an inventory of the "Stock in Laboratory, taken 1st Ap. 1825" (26 p.), made for Professor Keating by D.H. Aswell; an inventory of the "Laboratory Stock taken 1 March 1826" (27 p.), evidently in Aswell's hand; and a list of the "Laboratory Stock of Univer. of Penna. taken in 1836" (14 p.), in an unidentified hand.

The 1825 inventory lists the chemicals and apparatus, and estimates the quantities of chemicals in the various bottles (i.e., 1 [two-quart bottle] full of Acetic acid), but does not give any costs. The 1826 inventory gives an accurate estimate of the quantities

of chemicals, and the prices which Keating paid for them. The 1836 inventory does not give quantities or costs. Since the 1825 inventory does not contain anything of significance not found in the 1826 inventory, and since it does not include the prices, it is not reprinted here.

The 1826 and 1836 inventories have been copied without changes of spelling, but the abbreviations have been expanded to make the names more intelligible to the layman. The names of several of the elements were abbreviated (i.e., Mang [Manganese], Plat [Platinum], Sil [Silver]) in the book instead of being designated by the symbols (i.e., Mn, Pt, Ag). This has some significance in showing the slowness with which the symbols, originated some years before by Berzelius, were accepted by chemists. Keating annexed the prices to the 1826 list shortly before he left the University to travel to Mexico; and in the case of the articles which were imported from France, he added 50/100 to the original cost to cover "charges, freight, breakage, etc." (See Keating's note at the end of the inventory.) These prices have been transcribed in parentheses, followed by the initials W.K. A few items were reserved from sale by the Professor, and beside these are transcribed Keating's notes, followed by his initials.

Before the University purchased the equipment in 1828, Professor Alexander Dallas Bache compared the stock with the inventory. (See Bache's note at the end of the inventory.) He checked each item in pencil, and noted in a few cases that the material was missing or broken. Bache's check marks and penciled comments are omitted in this transcription.

UNIVERSITY OF PENNSYLVANIA

LABORATORY STOCK TAKEN 1 MARCH 1826

All the articles marked thus ✓ are contain'd in the recapitulation.

Ground Stopper bottles

9	Half Gallons (.40-.60 W.K.)	Amt of contents	\$5.40
✓1	Pure Ammonia	4 lb	
✓1	Imp[ure] Ammonia	4 lb	
✓1	Pure Nitric acid	6 lb	
✓1	Pure Muriatic acid	5½ "	
✓1	Acetic acid	1½ "	
✓1	Hydrosul[furic] acid	4 "	
3	Empty		
7	One Quarts (.20-.30 W.K.)		2.10
✓2	Pure Muriatic acid	5½ "	
1	Sub Sulfat[e] Soda	1½ pints	.50
4	Empty		
✓1	gallon B[lac]k bottle Muriatic acid Im[pure]	11 lb	.50
18	One Pints (.16-.24 W.K.)		4.12
✓2	Hydrosulf[ate] ammo[nia]	2 lb	
✓1	Pure Nitric acid	1½ "	
✓1	Hydrosulf[ate] of Potash	1 "	
✓1	" Soda	1 "	
1	Chromate of Potash	12 oz.	.20
1	Weak Muriatic acid	1 lb	.12
1	Acetate of Potash	1 "	.25
1	Soude a la chaux	8 oz	1.20
1	Sulphate of Soda	8 oz	.06
1	Muriate Soda		.28
7	Empty		

13	Eight ounces wide mouths	(.35-.52 W.K.)	6.76
1	Pure alumini	3 oz	
1	Cal[cined] Magnesia	4 oz	
1	Sulph[ate] Mag[nesia]	4 oz	
1	Chloride calcium	3 oz	.25
1	Alumini	3 "	
1	Carb[onate] Potash	4 oz	
1	Muriate Platina & Ammo[nia]	4 "	2.00
1	Residue Do Do	4 "	1.00
1	Platina Solu[tion]	2 oz	50
4	Empty		
37[!]	Eight ounces narrow m[ou]t[h] (.14-.21 W.K.)		7.61
1	Æther	1 oz	
✓1	Hydrosulph[ate] Potash	8 "	
✓1	Nitrious acid	6 "	
✓1	Hydrosulph[ate] Potash	6 "	
1	Solution Potash	4 "	
✓1	Imp[ure] Muriatic acid	6 "	
✓1	Pure Muriatic acid	6 "	
✓1	Imp[ure] Nitric acid	7 "	
1	Sulphate copper	4 "	
✓1	Pure Nitric acid	10 "	
✓1	Hydrosulph[uric] acid	8 oz	
1	Nitrate Barytes	8 "	.10
✓1	Nitric acid	4 "	
1	Acetate of Lead	4 "	
✓1	Acetic acid	8 "	
1	B[lac]k sulphuric acid	12 oz	
1	Pu[re] Sub carb[onate] soda	3 "	.10
1	Sulphurous acid	4 "	.25
1	Sulphuric acid	12 oz	6
✓1	Muriatic acid	10 "	
1	Imp[ure] sub carb[onate] soda	4 "	4
1	Pure sub carb[onate] Potash	6 "	
✓1	Pure Nitric acid	5 "	
✓1	Pu[re] Muriatic acid	9 "	
10	Empty		

38 Six ounces (.12-.18 W.K.) 6.84

1 Nitrate Lime	3 oz	10
✓1 Tincture Litmus	6 oz	
1 [undecipherable]	2 oz	
1 Nitrate Barytes	4 oz	
1 Oil Lavender	3 oz	
1 Archil	6 oz	50
1 Chromate of Potash	2 "	
1 Prussiate Potash solu[tion]	2 "	
1 Muriate Barytes	3 "	
1 Chromate Potash Stop[pe]r bro[ken]	3 "	
1 Sulphate Potash	6 "	
1 Sulphate Ammo[nia]	6 "	.25
✓1 Hydrosulp[hate] Amm[onia]	6 "	
1 Muriate of Ammo[nia]	4 "	
1 Nitro Muriatic acid	8 "	.12
1 Acetious acid	2 "	
1 Nitrate of Iron	2 oz	.25
1 Neu[tral] Ox[alate] Potash	3 "	
1 Sulphate Mang[anese]	3 "	.50
✓1 Muriate of Iron	3½ "	1.00
1 Nitrate of copper	4 "	
1 Muriate of Platina	3 oz	4.50
✓2 Nitrious acid	8 oz	
✓1 Pure Ammonia	6 "	
13 Empty		

17 Three ounces (.09-.13½ W.K.) 2.29

1 Iodine	½ oz	1.00
1 Red ox[ide] Phospho[rus]	1 "	
1 Sulphuric Aether w[it]h Phospho[rus]	1 "	
1 Muriate Lime	2 "	
1 Caustic Potash	1 "	
✓1 Hydrosulph[ate] Amm[onia]	3 "	
2 Oxalic acid	4 "	
1 Mercury	1½ lb	.75
1 Hydriodic acid	1 oz	.50
1 Nitrate Silver (Solu[tion])	½ oz	.25
1 Prussiate Potash (Solu[tion])	1 "	
5 Empty		

15	Two ounces	(.08-.12 W.K.)		1.80
	1 Barytes		1 oz	.60
	1 Strontium		1 oz	.60
	1 Cyanuret of Mercury		1 oz	
	✓1 Hydrosulp[hate] Ammo[nia]		½ oz	
	1 Phosphoric acid		2 oz	1.50
	1 Antimony		3 oz	
	9 Empty			
5	Two ounce boston vials			.60
	1 Strong Nitrious acid		½ oz	.25
	1 Nitric acid Sat[urated] w[it]h Nitrious acid		2 oz	.10
	1 Do Do not	Do	2 oz	
	1 Pure Hydriodic acid		¼ oz	.25
	1 Sulphate Mercury		2 "	.25
3	One ounce	(.06-.09 W.K.)		.27
	1 Muriate Platina		½ oz	75
	1 Silex			
	1 Iodine			
	1 flatt green bottle			.10
	1 Quart bottle with stop cock			1.80
	2 Quart distill'd water bottles			.50
20	Half gallons plain bottles	(.18-.27 W.K.)		5.80
	1 Alcohol		2 quarts	.25
	1 Com[mon] Vinegar		2 quarts	2.10
	1 Sub carb[onate] Potash		2 quarts	.20
	1 " " Soda		2 qu	.20
	1 Lime water			
	1 Sulphuric acid and water		2 lb	.10
	1 Sulphate of Zinc w[it]h excess of acid		3 lb	.30
	13 Empty			
20	One quarts	(.09-.14½W.K.)		2.90
	✓1 Tincture Litmus		12 oz	
	1 Muriate of Ammo[nia]		1 lb	
	1 Potash		1½ lb	
	1 Camphor		1 "	
	1 Liquor Silicium		1 lb	
	15 Empty			

18	One Pints	(.05-.07½ W.K.)	1.45
1	Solu[tion] Silver precipitated		
1	Sulphate copper	8 oz	
1	Platina (Solu[tion])	1 lb	.25
1	Allum	1½ lb	
14	Empty		
2	Half gallon green bottles		.50
✓1	Muriatic acid Imp[ure]	8 lb	
✓1	Nitric acid Imp[ure]	8 lb	
22	Wide mouth quarts	(.09-.13½ W.K.)	2.97
1	B[lac]k flux	8 oz	
1	Starch	1 lb	
1	Nitrate of Ammo[nia]	½ lb	.50
1	Col[ored?] Nitrate potash	2 lb	.20
✓1	Nitrate Potash	2 lb	15
1	Caustic Potash	2 lb	4.80
1	Sulphate iron	2 lb	.10
1	B[lac]k ox[ide] Manga[nese]	4 "	.40
14	Empty		
17	Wide mouth pints	(.05-.07½ W.K.)	1.28
1	Glue	½ lb	
1	Lamp b[lac]k	4 oz	
1	Cal[cined] Mag[nesia]	8 oz	
1	Sulphate ammo[nia]	1 lb	2.40
1	Tartaric acid	1 lb	1.20
1	Pure Potash	1 oz	.15
1	Allum	1 lb	
1	Cream Tartar	8 ounces	
1	Soude a la chaux	1 lb	2.40
1	acid Phosphate Lime	8 oz	
1	Sulphate Zinc	8 oz	
1	B[lac]k Lead	1 lb	.20
	Sulphate iron	1 lb	
✓	Nitrate Potash	8 oz	
	Sub carb[onate] potash	8 oz	
2	Empty		
23	Half Pints	(.04-.06 W.K.)	1.38
1	Gum Senegal	4 oz	
1	" Copal	6 oz	
1	Tournesol	4 oz	.20
1	Gum Shellac	8 oz	
1	Nitrate of Ammonia	4 oz	.25

1	Sub carb[onate] Soda	8 oz
1	Do Do	4 oz
1	Phosphate of iron	8 oz
1	Residue of Platina	
1	B[lac]k ox[ide] Manganese	1 lb .10
1	Nitrate of Lead	1 lb 50
1	Arsenic	4 oz 15
1	Red ox[ide] Manganese	
1	Prussiate of iron	4 oz
1	Steel wire	
8	Empty	
22[!]	Six ounce wide mouths	(.03-.04½ W.K.) .99
1	Allepo galls	3 oz
1	Oxalate of Potash	1 " .30
1	Prussiate of Potash	1 oz .36
1	Boracic acid	1 oz .22
1	Sulphate ammo[nia]	4 oz .60
1	Coro[sive] Sublimate	4 oz .25
1	Sulphuret of Anti[mony]	6 oz
1	Phosphate of iron	3 oz
1	Nitrate of Lead	4 oz .12
1	Red ox[ide] Mercury	6 oz .75
1	Tacks	
1	Iron clippings	
1	Copper filings	
8	Empty	
20	Three ounces wide mouth	(.02-.03 W.K.) .60
1	Gum Tragacanth	½ oz
2	Chloride potash	2 oz
1	Oxalate of Ammo[nia]	1 oz .30
1	Borax Vitrif'd	¼ oz 30
1	Sulphate Zinc	2 oz
1	Corosive sub[climate]	½ oz
1	Nitrate of Mercury	1 oz .20
1	Sub Nitrate Mercury	1 oz .20
1	Acid Nitrate of Mercury	1 oz .20
1	Chromic acid	½ oz
1	Copper	
8	Empty	
2	Two ounces	(.0375-.05 W.K.) .10
1	Nitrate of Silver	½ oz .30
1	Oxalic acid	½ oz .20

72	half ounce wide mouths g[ree]n	(.25 W.K.)	9.00
1	Muriate of Ammo[nia] & Platinum		1.50
1	Carbonate of Lime		
1	fused Iodine		.40
1	Muriate of Barytes		.30
12	Analyses of metals		
56	Empty		
1	Green bottle carb[onate] ammo[nia]	1 lb	1.72
200	New corks		
14	tool handles		
5	two quart tumbler	(.60-.90 W.K.)	4.50
15	one quart Do	(.35-.53 W.K.)	6.45
1	refin'd Lead for cupell[atio]ns	1 lb. 12 oz	.63
1	Sulphur in crusible		
1	Muriate of Ammo[nia]	1 lb	.10
1	Potash	1 lb	.10
11	Empty		
2	half pint tumblers	(.20-.30 W.K.)	.60
1	Book leaf gold		.25
1	" Tin foil		
7	lb Lead and soda		
1	Box cuppels		1.00
1	Do dilapidated		
1	Piece of botling cloth		
1	" wire gauze		
2	Platina crusibles and cover w[it]h Spat[ul]a		30.00
1	Silver Do Do Do		8.00
1	Twelve in. Porcelain capsule	(2.20-3.30 W.K.)	3.30
2	10 in. Do	(1.80-2.70 W.K.)	5.40
2	9 in. "	(1.60-2.40 W.K.)	4.80
6	7 in.	(.80-1.20 W.K.)	7.20
6	6 in.	(.65-.97 W.K.)	5.82
5	5 in.	(.55-.83 W.K.)	4.15
4	4 in.	(.42-.63 W.K.)	2.52
3	3 in.	(.35-.52 W.K.)	1.56
2	2 in.	(.12-.18 W.K.)	.36
26	Shallow Do (covers)	(.03½-.05½ W.K.)	1.58
12	Areometers and Thermometers		
		(4.00 + 3.20 + 3.60 W.K.)	10.80
1	Glass Cylinder		3.00

6	Reverbatory furnaces	19.50
2	Cuppelling Do	11.00
7	Evaporating [Do]	8.40
	Sundry apparatus for cupple furnace	
1	Candle stand	
3	Painted Do for furnaces	
3	brass wire sieves	.50
115	Crusible covers	2.30
18	round Do	.36
10	Stands	.20
5	Nests crusibles	
20	Do wanting one or two	
50	Single Do	
32	Hessian cups	3.20
3	One Gallon gass receivers	6.00
2	½ Do Do	3.00
3	Bell glasses	12.00
2	smaller Do	4.00
2	less —	2.00
1	Jar Ba[r]badoes tar	1 lb .50
2	Boxes sub carb[onate] soda	6.25
1	Jar Marble dust (Gall)	
1	copper scoop	.75
2	green glass jars	.50
7	Gr[een] glass bottles	
1	Jar roll Sulphur	4 lb .20
1	Alembic	.75
4	Adapters	2.00
18	Mattresses	8.50
1	five gallon Demijohn	
1	Pneumatic tub and stand	5.00
1	Do (lent to [undecipherable])	
1	Stone barrell for Dist[illed] Water	
1	Tray	
1	Stone jug (Mother waters of Va. [?-Virginia?]) 4 lb	4.50
1	Lar[ge] tin bucket and cock	
	Distilling apparatus (<i>belongs to the University. W.K.</i>)	
3	p[ai]r tongs	1.00
4	iron tripods	1.00
1	Blow pipe	1.00
12	Wire grates	
2	cast iron furnace covers (<i>belongs to the Univr. W.K.</i>)	
1	cast iron box	

1	copper tube for Dis[tilling] phos[phorus]	.50
24	Earthern retorts	3.75
	Apparatus in Lecture room to car[r]y of[f] fumes <i>(now in laboratory, W.K.)</i>	2.00
1	Lar[ge] pan Muriate soda	20 lb .60
1	B[lac]k lead crusible	
	Quantity of ores and minerals	
1	Miners lamp (<i>I have taken this with me W.K.</i>)	
1	Stone pitcher	.50
1	Tin dipper	.12
2	Cups	
4	shovels	1.00
1	Poker	.25
2	Tables (<i>the small table belongs to the Univr. W.K.</i>)	2.00
3	Chairs	1.50
1	Ladder	
1	Lar[ge] bellows and apparatus	4.00
1	Work bench	4.00
50	feet pine boards	
17	Towels	2.—
11	Gallon glass globes	
19	Large flasks (.08-.12 W.K.)	2.28
195	Smaller Do various	8.00
	4 of which lent to S.B.North	
5	tubulated receivers	5.00
1	Electrical Machine and Jars	1.50
6	Leaden stand for comb[i]n[ing] in gass's	
25	tubulated retorts 2 qu[arts] to Pint	11.25
1	Plain Do	.30
9	Small Do	2.80
8	White dishes	2.00
3	Small Do	.75
19	Plates	3.50
✓1	Carboy sulphuric acid	say 60 lb
6	unglazed tureens (3 crack'd)	2.50
7	others	1.—
2	cast iron pots and covers	1.00
2	Do Plates	
2	Lamp oil cans	1.00
1½	Gallon Lamp oil	1.12½
2	suspending lamps	7.50
2	hanging lamps w[it]h reflectors	1.50
2	Branch Do	10.00

7	lb Chalk	
2	Tubs	
4	Buckets	1.00
1	Lehigh coal stove	3.00
1	Glass lantern	.50
1	Painters bucket	
1	lb soap	
	Comparative graduated board for the 3 Thermometers	
1	Box for test bottles	
3	Gass test glasses	.90
4	Stands for Areometers	1.80
9	Gr[een] Wine glasses	.90
24	White Do	2.50
29	funnels	2.90
1	Seperatory Do	1.25
14	two quart Wolf bottles (.36-.54 W.K.)	7.56
7	one Do (.27-.40 W.K.)	2.80
2	pints Wolf's bottles	.75
1	Pair lar[ge] Scales	2.50
1	set weights—4 lb to $\frac{1}{2}$ oz	.50
1	Pair french Do & weights	{ (Not found— A[lexander])
2	Pr small Do & Do	
2	Porcelain Mortars and pestle	2.00
2	Agate Do Do	5.00
2	Iron Do Do	6.00
1	Glass Do Do	1.00
50	Glass covers	.50
2	Papers containing	{
8	lb Nitre	
22	8 ounce bottles	12.50
	1 sulphate Zinc	.80
	1 Residue Platina	4 oz
	1 Gum Arabic	2 oz
	1 Solu[tio]n Gold	
	1 Super ox[ide] of Potash	
	1 oxide of Lead	3 oz
	1 Sulphate Soda	1 lb
	1 Spirits wine	6 oz
	1 Muriate Lime	6 oz
	13 Empty	6 oz

39	Vials		1.50
4	Phosphorus	5 oz	5.—
1	ox[idized?] Mu[riate] Potash	1 oz	.75
1	Platina wire		1.00
2	Residue Platina		
1	Secative oil		
1	Amalgam of Gold		
1	Metallic Platina	1 $\frac{1}{2}$ oz	4.50
1	Chromate Le[ad]	$\frac{1}{2}$ oz	
27	Empty		
30	Feet long glass tubes		2.00
6	Lar[ge] connecting tubes		1.20
30	connecting and emitting tubes		3.00
11	lb short tubes		1.00
6	compound syphons		2.70
2	Plain Do		.50
8	Welters safety tubes		3.60
4	bulb safety tubes		1.50
1	Plain serpentine Do		.25
4	long funnels (old tubes)		.25
11	Sucking pipes		2.25
	Gun Barrell for Iron retort		1.00
	Sundry pipes for furnaces		
10	Bushels charcole		
1	Cinder seive		
2	Sweeping brushes		
1	Painters Do		
2	Boxes minerals (<i>Reserved Not intended for sale W.K.</i>)		
1	Jack plane		.50
1	Rabbit Do		.50
1	file		
3	Chissels		
1	iron square		
1	small Do		
1	Claw hammer		
1	hand saw		
1	Tennant Do		
1	Brace & 4 bits		
1	$\frac{3}{4}$ Auger		
4	Gimblets		
2	Brad awl		
2	Pr. Pinchers		
1	Pr. Plyers		

2	Candle sticks	
1	Lamp	
1	Extin. 1 pr snuffers	
	Sundry Lamp wicks & sticks	
	Padlock to cellar door	
	Lock in Water closet door	
1	Do stairs door	
10	Cast iron ash grates	2.50
1	Ink stand	
1	Sand box	
3	lb nails	
15	Ox bladders	.60
2	New iron bucket hoops	
1	cast iron box	

Recapitulation of Tests [i.e., Reagents] &c each contained in more than 1 Bottle

60	lb Sulphuric acid	4.80
13	lb 3 oz pu[re] Muriatic acid	10.00
4	lb 8 oz Hydrosulph[uric] acid	
2	lb 1 oz Acetic acid	1.00
6	lb B[lac]k ox[ide] Manganese	.48
4	oz Sulphuric acid	
2	lb 9½ oz Hydrosulph[ate] Ammo[nia]	10.00
1	lb 14 oz Do Potash	8.00
1	lb Hydrosulph[ate] soda	5.—
3	lb 14 oz Tincture litmus	
29	lb 6 oz imp[ure] Muriatic acid	2.90
10	lb 8 oz Pu[re] Nitric acid	7.50
4	lb 6 oz pure Ammo[nia]	5.50
4	lb imp[ure] Ammo[nia]	3.00
1	lb Nitrious acid	.50
8	lb Impure Nitric acid	2.50
10½	lb Nitre	1.05
1	Airpump	60.00
1	Eudiometer	26.00
1	p[ai]r of scales with stand	10.50
1	“ Do in a box	15.00
1	“ Do “ “ Do small size	
4	“ of small scales	5.—
1	Set of Troy weights	2.00
		<hr/>
		\$693.14

The above prices have been annexed at a moment when I had but little time to spare; I believe them to be generally [word crossed out—pretty?] correct; Some of them may be very much out of the way, but these can not be numerous. They have been computed in the case of all articles imported from France, by adding to the original cost 50/100 for charges, freight, breakage, &c. This does not admit that the duty is paid & is I believe a very moderate allowance. I am not anxious to dispose of my apparatus & would indeed prefer keeping it for a twelve-month at least. Yet if the University should wish it, I have no objections to their taking it at the price there mentioned. I would of course prefer that it were not divided; but if there be any instrument such as the air-pump &c the purchase of which should be deemed inexpedient, I have no objection to its being left out. At any rate, whatever Dr. Patterson may wish or advise my father to do with it, I shall most certainly approve of.

Will^m H. Keating

April 1st 1826.

University of Pennsylvania

March 30th, 1826

The articles enumerated in the foregoing list have have [*sic*] been put into my possession by prof. Keating, with an understanding that I am to have the use of them during his absence in Mexico, or until either party shall choose to make a new arrangement respecting them. I hereby make myself responsible for any injury that may be done to the instruments, and promise to pay for so much of the chemical tests and agents as may be used while they are in my possession, according to the prices which are annexed to them respectively.

R.M.Patterson

December 1828

Having found in the Laboratory the articles enumerated in the foregoing catalogue, with a few exceptions which have been noted; by authority from the Trustees of the University, the purchase of the Laboratory stock of W^m H. Keating Esq has been made, from his father Jno. Keating Esq. This stock is now the property of the University.

Alex. Dallas Bache

LABORATORY STOCK OF UNIVER. OF PENNA. TAKEN
IN 1836.

INORGANIC CHEMISTRY

SIMPLE SUBSTANCES

Carbon

Ivory Black—Lampblack
Charcoal fro[m] oil—& fr[om] coal

Sulphur

Sulphur—Flowers of Sulphur
Crystals of Sulphur ([undecipherable word])
Do from Sulphur
White Sulphur Water
Carburet of Sulphur
Balsam of “
Mixture of Sulph[ur] & Lime
Do “ Do & Nitre
Gunpowder (Nit[re], Char[coal] & Sulp[hur])

Phosphorus

Two bottles good—Two middling
Sol'n [of] Nap[h]tha & Phosphorus
Phosphorus in Olive oil
Do w[it]h Sulp[huri]c Ether
Do Match bottles (2)

Boron

Borax. Boracic Acid (Bibor[ate of] Soda)

Selenium in Box

Chlorine

Sol[utio]n of Chlorine—Chloride of Iodine, 2 Bottles

Iodine

Iodine—Fused Iodine, Iode (2 bottles)
Solu[tio]n of Iodine—Iodine in Ether
Iodine in Alcohol—Mother Waters of Kelp

Bromine

MINERAL ACIDS

Sulphuric Acid (3 Strong, 2 weak)
" " anhydrous
Sulphurous Acid & Water
Hydro-Sulp[huri]c or Sulp[hure]tted Hyd[rogen]
Hydro-Chloric vel Muriat[i]c (3 bottles)
Nitric Acid (2 Strong, 2 weak)
Mixture of Nit[ri]c & Muria[ti]c (Bottle small)
Nitric Acid with Deutox[ide] of Nitrogen
Deutox[ide] of Hyd[rogen] in dilute Mur[iatic] acid
Phosphoric Acid
Chloric Do
Hydr-Iodic Acid
Hydro-cyanic or Prussic Acid

METALS

Potassium

Potass[iu]m—Pure Potassa in Sol[utio]n
Sol[utio]n of Potassa
Caustic Potassa (Two Bottles)
Pearl Ash
Nitr[ate] of Pot[assa]—Bottle & crystal
Do Do Calcined
Ferro-hyd[ro] cyan[ide] of Pot[assa] (minera[l] & sol[utio]n)
Sulpho cyan[ide] of "
Red Ferro-Prussiate of Pot[assa]
Oxi-muriate of Pot[assa]
Chromate of Potassa
Bi-chrom[ate] of "
Acetate of Potassa
Bi-Tartrate of " also calcined
Tartar Emetic (2 Bottles)
Carb[onate of] Potassa (2 Bottles)
Sulphate of Potassa (Impure)
Bi-Sulp[hate] of Potassa (Bottle & Paper)
Bi-Sulp[hate] & Acetic acid
Hydro-Sulp[hate] of Pot[assa] (3 Bottles)
Oxalate of P[otassa] (2 B[ottle]s, one crys[talline], 1 Liquid)
Bin-oxalate of P[otassa] to prepare Carb[oni]c oxide
Bin-oxal[ate] of P[otassa] (Essential Salt of Lemon, 3 B[ottles])
Chlorate of Potash (2 Bottles)
Oxy-Chlo[rate] of Pot[assa] & Sulp[huri]c Acid
Chlorate of Potassa with Chlo[ri]de of Pot[assiu]m

Tartrate of Pot[assa] & Soda (Rochelle Salts)
Carbazotate of Potassa
Hydriodate of Do
Manganesite & Man[ganes]ate of Pot[assa] (see Manganese)

Sodium

Sodium (2 Bottles)
Soda caustic & in solution
Carbonate of Soda (4 B[ottle]s & 1 in Solu[tio]n)
" " " Impure
Muriate of Soda—com[mon] salt
Rock Salt—2 Specimens
Muriate of Soda (Liquid)
Sol[utio]n of Mur[iate of Soda] in Alcohol
Sulphate of Soda (Glauber Salts— [undecipherable])
Hydro-Sulp[hate] of Soda
Chloride of Soda (Labarraque's dis[infecting] Liq[uid])
Crystals from Evapo[ration] of " "
Phosphate of Soda (2 B[ottles]—One Liquid)
Pyrophosp[hate] of Soda
Bromide of Soda
Sol[utio]n of Bi-Borate of Soda (Borax)

Barium

Baryta
Peroxide of Barium
Nitrate of Baryta (2 Bot[tles], 1 crys[talline])
Muriate of " 2 B[ottle]s (one Sol[utio]n)
Chlorate of "

Strontium

Strontia
Nit[rate] of Strontia (one crys[tals])
Chloride of Stront[iu]m

Calcium

Lime (2 Bottles)
Hydraulic Lime
Roman Cement
Chloride of Calcium (2 B[ottle]s)
Fluor Spar (4 Bott[les] & Specimen)
Chloride of Lime (Bleaching pow[der])
Lime water
Phosp[h]uret of Lime (2 Bottles)
Phosphate for distillat[ion] of Phosp[horu]s
Bi-Hydro phosph[hate] of Lime

Magnesium

Magnesia

Carb[onat]e of Mag[nesia]

Sulp[hate] of Mag[nesia]. Epsom Salts

Real dry Chlo[r]ide of Magnes[iu]m

Hydrous " " "

Aluminium

Alumina (2 Bottles)

Alum (Sulp[hate of] Al[uminium] & Pot[assium]) (1 B[ottle] & papers)

Alum copperas

Glucinium

Glucir

Silicon

Silica (2 B[ottle]s)

Soluble Silica

Silicate of Mang[anese] (Mineral)

Silicate of Pot[assa] (Liquor of Flints)

Manganese

Per-oxide of Mang[anese] (Black)

Brown Oxide

Red Oxide

Sulphate of Man[ganese] (Impure)

Muriate of "

Chloride of "

Silicate of Man[ganese] (Mineral)

Manganesate of Potassa

Manganesite of "

Chameleon Mineral

Iron

Iron in 2 Bottle[s]

Protoxide—Peroxide

Carburet of Iron (Bl[ac]k Lead)

Sulphuret of "

Proto-Sulp[h]ate of Iron (2 B[ottle]s)

Proto & per Sulphate of Iron (2 B[ottle]s)

Sulphate of Iron (Exposed to heat)

Per-Sulphate of Iron

Per-Nitrate of Iron

Per-Muriate of Iron

Phosphate of Iron

Iron Filings

Copperas dissolved in Alcohol
Prussian Blue (2 Bottles)
Iron turnings. Card teeth

Cadmium (Bottle)

Zinc

Mineral also Oxide of Z[inc] (2 Bottles)
Sulphate of Zinc (3 B[ottle]s, One liquid)

Tin

Grain Tin
Protoxide of Tin—Perox[ide] (2 B[ottle]s)
Per Muriate of Tin
Proto Muriate of T[in] (Small Bottle)
Sulphuret of Tin (paper)
Proto-Sulphuret of T[in] (bottle)
Bi-Sulphuret of Tin
Per mur[iate] of Tin with Excess of Acid. Label obscure

Cobalt . . . Smaltz, blue glass

Nickel Sulp[hure]t Mineral

Arsenic

Mineral & crystallized
Arsenious Acid or Oxide of (2 B[ottle]s)
Fowler's Solution

Chromium

Oxide of Ch[romiu]m
Chromic Acid
Bi-chromate of Potassa
Chr[omate] of Sod[a]
Chromate of Lead

Antimony

Antimony
Sulp[hure]t of An[timony] (3 Bot[tles]. 1 Liquid)
Do " " " in Potassa
Deutox[ide] of An[timony]
Per-ox[ide] of An[timony]
Muriate of An[timony]

Tungsten

Tungstic Acid
Brown Ox[ide] of T[ungsten]
Per Sulp[hate] of Tung[sten]
Tungstate of Ammonia
Tungstate of Soda

Bismuth

Mineral Bismuth
Oxide of “
Sulph[ure]t of “
Nitrate of “
Sub Nit[rate] of [Bismuth]

Copper

Copper filings
Per Oxide of Cop[per]
Proto-Muriate of Cop[per]
Acetate of Cop[per]
Bi-Acetate of Copper (Verdigris)
Nitrate of Cop[per] (3 Bottles. 1 Liq[uid])
Sulp[hate of] Copper (Blue Vitriol. 2 B[ottle]s)
“ “ Crystals of
“ “ Ammoniacal

Lead

Bars of—In paper
Lead Tree
Protox[ide] of L[ead] (Massicot)
Deutox[ide] (Red Lead—2 B[ottle]s)
Per-oxide of L[ead]
Nitrate of L[ead] (2 B[ottle]s. One Liquid)
Acetate of L[ead] (Sugar of L[ead]. 3 B[ottle]s. One Li[quid])
Sub Acet[ate] of L[ead]
Carb[onate] of L[ead] (White Lead)
Chromate of L[ead] (See Chromium)

Mercury

Metallic Mercury
Protox[ide] of “ (Black)
Perox[ide] of “
Proto-Nit[rate] of Mer[cur]y (4 B[ottle]s)
Per-Nit[rate] of “
Chloride of Mer[cur]y (Calomel)

Bi-Chlor[i]de of Mer[cur]y (Corrosive Sublimate. 3 Bottles)
Sulphate of Mer[cur]y (2 Bot[tles])
Bi-cyanide of Mer[cury] (3 B[ottle]s)
Residue (from preparation of Cyanogen from Bi-cyanid[e] of
M[ercury])
Bi-Sulp[hure]t of M[ercury] (Vermillion)
Fulminating Merc[ur]y

Silver

Silver tree
Silver leaf (Drawer No. 2)
Sulphate of Sil[ver]
Nit[rate] of Sil[ver] (paper & bottle)
Ammon[ia]t[ed] Nit[rate] of Silver

Gold

Amalgam of Gold
Etherial Sol[utio]n of Gold
Chloride of Gold

Platinum

Platinum Wire (Coarse & fine)
Platina
Muriate of Plat[in]a & Ammo[nia] (4 B[ottles])
Mur[iate] of Plat[in]a
Residue from ore of Plat[in]a supposed to contain Irridium,
Osmium, &c. 2 B[ottle]s
Mur[iate] of Plat[in]a & Potassa
Residue fr[om] prep[aratio]n of Mur[iate] of Pla[tin]a (3 B[ottle]s)

Alkali Ammonia

Aqua Amm[onia] (2 B[ottle]s)
Mur[iate] of Am[monia] & Lime to prepare Ammonia
Mur[iate] of Am[monia] (4 B[ottle]s)
" " A[mmonia] & Nitre to produce cold
Nitrate of Am[monia] (2 B[ottle]s)
Nit[rate] of A[mmonia] used to prepare (Ch+N)
Oxal[ate] of A[mmonia] (3 B[ottle]s)
Sulp[hate] of A[mmonia] (3 B[ottle]s)
Hydro-Sulp[hate] of A[mmonia] (3 B[ottle]s)
Carb[onate] of Am[monia]
Phosphate of Am[monia]
Sol[utio]n of Succinate of Am[monia]
" of Benzoate of Am[monia]. Vide Benzoic Acid.

ORGANIC CHEMISTRY
divided into
VEG[ETABLE] & ANIMAL CHEMISTRY
VEG[ETABLE] CHEMISTRY
VEG[ETABLE] ACIDS

Oxalic Acid

4 B[ottle]s— & Ox[alate] of Amm[onia]. See Ammonia

Acetic Acid

Vinegar (2 B[ottle]s)
Acetic Acid white (2 B[ottle]s)
" " Pure
" " Crystallizable

Citric Acid—2 B[ottle]s. One Liquid

Tartaric Acid 2 B[ottle]s. " "

Benzoic Acid 1 Bot[tle]—Solid

Benzoate of Ammonia

Tannic Acid or Tannin. 2 B[ottle]s. One Liquid

Gallic Acid. 2 B[ottle]s

Infusion of Galls
Aleppo Galls

Succinic Acid. 1 B[ottle] solid

Succinate of Ammonia

Carbazotic Acid. 2 B[ottle]s

Solu[tio]n of Carb[azotic] A[cid] in alcohol

VEGETABLE ALKALIES

Morphia

Acet[ate] of Morphia (2 Bottles)

Opium

Infusion of Opium in Ether
" of turkey Opium

Narcotina

Quinia

NEUTRAL SUBSTANCES

Sugar crystallized (2 B[ottle]s)
Maple Sugar
Manna—Mannite
Flake Manna
Sugar fr[om] Starch
Honey (2 Bottles)
Starch—Wheat flour

GUM

Gum Arabic, Senegal, Tragacanth

OLEAGINOUS, RESINOUS, & BITUMINOUS SUBSTANCES

Oils

Olive oil—Cotton seed oil
Linseed oil. 2 Bottles
Do exposed to air
Do boiled
Oil of Turpentine (2 Bottles)
Do in Alcohol
Oil in Ether
Camphor—Sol[utio]n of C[amphor] in Alcohol
Oil of Lavender
" of Sassafras
" of Copaiva
" of Bitter Almonds

Resinous

Rosin (Bottle & paper)
" in alcohol
Gum Copal
Copal in Oil of Turpentine
" " " of Lavender
Resins in Alcohol
Lac & Lacquer
Gum Guiacum (2 B[ottle]s)
Do in Alcohol
Gamboge
Indian Rubber in O[i]l of Turpentine
Do in O[i]l of Sassafras (2 B[ottle]s)
Blackberry Juice
Tincture of Myrrh
Bees Wax
White Wax

Myrtle "

Do " Soap (Bot[tle] & paper)

" " " crystals of, fr[om] alcohol

Bituminous Substances

Nap[h]tha

" from pr[e]c[i]p[ita]t[e] of Coal Tar

Petroleum—Asphaltum

Barbadoes Tar

Eupione. Kreosote (2 Bottles)

SPIRITUOUS & ETHEREAL SUBSTANCES

Alcohol. Absolute Alcohol

" streng[thene]d by bladder

Ether

Sulph[uri]c Ether (3 Bottles)

Acetic "

Spirits of Nitrous Ether

Chlorine Ether

Hoffman's Anodyne (Sulp. Vinic)

COLOURING MATTERS

Blue Dyes

Indigo in Hydro-Sulp[ha]te of Amm[oni]a

Sol[utio]n of Sulp[ha]te of Indigo

Indigo red & Potassa—Sol[utio]n in alcohol

Red Dyes

Cochineal—Infusion of Cochineal

Archil (2 B[ottle]s) Infusion of bark

Log Wood

Safflower (2 B[ottle]s—1 Liquid)

" First Infusion

Madder 2 B[ottle]s

Litmus

Anchesea [Anchusa] (2 papers & Bottle)

Yellow Dyes

Querciton bark (pap[ers] & bott[le])

Turmeric

" in Alcohol

" tincture of

DISTINCT SUBSTANCES

Malted & unmal[ted] Barley
Yeast

ANIMAL CHEMISTRY

Fibrin Acted upon by Alcoh[ol]
" " " [by] Acetic Acid
Glue
Isinglass (2 B[ottle]s. one Liq[uid])
Urea
Sugar of Milk
Saliva of Dog. Ox, Saliva of.
Blood thro' which a sol[utio]n of Chlorine has been passed.

CONTENTS OF DRAWERS IN THE COUNTER ON LECTURE TABLE

Drawer No. 1

Fire-pump. Spunk & matches.
Lamp wick—Twine.
Sand paper—Pins & isinglass

Drawer No. 2

Platinum & Iron Spoons
Gold & Silver Leaf
Watch Glasses—Blowpipe
Ruperts Drops
Spermaceti for small candles

Drawer No. 3

Lecture books, &c.

No. 4

Balances—Volta's Hyd[rogen] pistol
App[aratus]s to ox[y]-hy[drogen] blowpipe with various other
small matters.

No. 5

Glass Stoppers & Corks

SUNDRIES

Self-regulating reservoir for prepa[ratio]n of Hydro[gen]
Do for Carbonic acid gas.
Pneumatic trough & receivers
Syphons

2 Scales of Equivalents
Leaden Pipes
Alcohol blowpipe
Lamps of various kinds (Dr[awer] 5)
Boxes underneath Lecture table containing bladder, Indian
 Rubber, Brass, Lead, & Iron
Retort Stands & rings
Furnace with Pokers, ladles, &c.
Wine glasses, Retorts, Mattrasses
Ladles, &c.
Iron Bottle to prepare Pot[assiu]m, oxy[gen] & light car[burette]d
 Hy[drogen]
Bottles filled with Lime water, Sulphate of Zinc, on Canopy
Under cases, at top, retorts with various substances to prepare
 acids.

NOTES

1. Surviving inventories of this sort are believed to be rare. I. Bernard Cohen has published a "Catalogue of the Chemical Furniture & Apparatus in the Laboratory of Harvard University" dating from 1821 as an appendix to his *Some Early Tools of American Science* (Cambridge, 1950).
2. The biographical data in this article have been gathered from Keating's articles, books, and letters, the records of the organizations to which he belonged, the Minutes of the Board of Trustees of the University of Pennsylvania, personal correspondence with people who had knowledge of phases of his career, and miscellaneous books and articles.
3. The essay was read before the American Philosophical Society, but never published in its *Transactions*. It appeared as an 87-page pamphlet, 23.5 cm. x 15 cm. in size, in gray paper wrappers carrying a reprint of the title page, printed by Lydia R. Bailey for M. Carey and Sons.
4. "Account of the Jeffersonite, a New Mineral Discovered at the Franklin Iron Works, near Sparta in New Jersey . . ." *J. Acad. Nat. Sci. Philadelphia*, II: 194-204 (1822); *Edinburgh Phil. J.*, VII: 317-323 (1822); *Ann. Mines*, VII: 415-420 (1822); also reprinted as a 12-page pamphlet by Jesper Harding (Philadelphia, 1822). "On the Geology and Mineralogy of Franklin, in Sussex County, New Jersey . . ." *J. Acad. Nat. Sci. Philadelphia*, II: 277-288 (1821-22).

“Observations upon Some of the Minerals Discovered at Franklin, Sussex County, New Jersey . . .” *J. Acad. Nat. Sci. Philadelphia*, IV: 3–11 (1824–25); *Boston J. Phil. Arts*, II: 133–138 (1824).

“Observations upon the Cadmia Found at the Ancram Iron Works in Columbia County, New York, Erroneously Supposed to be a New Mineral . . .” *J. Acad. Nat. Sci. Philadelphia*, II: 289–296 (1821–22); *American J. Sci. Arts*, VI: 180–185 (1823); *Phil. Mag.*, LXII: 115–119 (1823).

5. My copy measures 21.5 cm. x 13.5 cm. (cut), has no wrapper, and contains 8 pages. Colophon: “University of Pennsylvania, Sept. 25, 1822.”
6. *Ibid.*, p. 8.
7. *Ibid.*
8. *Considerations upon the Art of Mining*, p. 42.
9. See the note written by Patterson and reprinted in the inventory at the end of this article.
10. Volume I contains 439 pages, 5 plates, 1 map; volume II contains 459 pages. At the end of volume II there is an appendix on the vocabularies of Indian languages by Keating and Say. Reviews of the *Narrative* may be found in the *North American Review*, XXI: 178–189 (1825); and the *Monthly Review*, CVIII: 113–125 (1825).
11. The scope of Keating’s activities may be seen by the titles of three of his reports to the House: *Speech of Mr. Keating . . . in Support of the Resolution Presented by him . . . Calling upon the State Banks for Weekly Reports of Their Condition. January 11, 1834* (Harrisburg, 1834, 40 p.); *Report of the Committee of Ways and Means . . . on the Currency and Finances of the Commonwealth. Mr. Keating, Chairman* (Harrisburg, 1834, 40 p.); *Report of the Committee on Inland Navigation and Internal Improvements, Relative to the Danville and Pottsville Rail-Road. By Mr. Keating* (Harrisburg, 1834, 6 p.).
12. *London Times*, 20 May 1840.

The Human Simian

WOLFGANG F. MICHAEL*

IT is a time-worn trick of poets and writers to clothe animals with human qualities and, as in a mirror, to contrast animal simplicity and human sophistication. In German literature the animal fable is frequently used. But among all animals the ape, the animal most similar to the human being, is perhaps best fitted to function as a satirical simile of man. I know of four ape stories in modern German literature. They all are interrelated and deal with the same motif. Since they start from the same central idea, the difference in execution becomes all the more obvious. This very difference in execution will make it possible to compare the various authors, their styles, their philosophies, and to obtain, in a way, an image of their personalities shaped by their times and the schools of thought to which they adhered.¹ The four fables to be presented here are E.T.A. Hoffmann's "Nachricht von einem gebildeten jungen Mann," Wilhelm Hauff's "Der junge Engländer," Wilhelm Busch's *Fipps der Affe*, and Franz Kafka's *Ein Bericht für eine Akademie*. The first of the four, E.T.A. Hoffmann's short sketch, taken from the *Kreisleriana*, has probably stimulated the other three authors.²

It is nothing unusual for Hoffmann to enliven animals, even plants, with feelings and actions of human beings. Berganza the dog, Murr the tomcat, Master Flea, and the vegetable figures in the "Königsbraut" are well-known examples of this Hoffmann-esque extravaganza. Yet the ape shows in its grim, eerie satire a face entirely different from the relatively harmless dog, cat, flea. Hoffmann's animals either remain by and large animals in spite of their human traits and thoughts, or they are humans occasionally cloaked in an animal body like, for instance, some of the figures in the *Goldene Topf*. Only Milo undergoes a complete and real transmutation from animal into human being.

Milo, a "cultured" ape, writes to Pipi, his old-time "girl friend," and, as in passing, describes his development to "Kultur" and to human thinking. "Heartlifting," Hoffmann calls it,

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“when one perceives how culture spreads more and more.” The young ape Milo is caught and introduced into the human world on the advice and under the instruction of a professor of aesthetics. He is considered a young man of good manners as soon as he “copies exactly facial expressions and gestures and wears decent clothes.” His doubts—“Even if you can speak, where will you get all the thousands of ideas and thoughts?”—are refuted quite simply by the professor of aesthetics:—“You must learn to speak, speak, speak; everything else will take care of itself. . . . You yourself will be surprised how the thoughts will come to you when you speak.” (This is an obvious allusion to Heinrich von Kleist, whom Hoffmann otherwise admired very much, and his essay, “Über die allmähliche Verfertigung der Gedanken beim Reden.”) And a little later certain idioms and phrases are suggested: “Do talk about the tendencies of the age—how this and that is expressed accurately—of the depth of feeling (*Gemüt*), of feeling and unfeeling (*gemütvoll und gemütlos*), and so on.” And happily Milo confesses: “How right this man was; how wisdom did come to me along with the ability to talk!” He is occupied with the arts, especially with music. The fortepiano is his favorite instrument; he acquires an amazing dexterity on it. Even his singing is brilliant “because the greatest difficulty has already been overcome. For nothing is more contrary to the true art of singing than a good natural voice.” He is also considered a composer. “In general it befits the genius to assert himself as much as possible and he should not be silent about the fact that everything that is done in art appears to him petty and miserable compared with what *he* could produce in all fields of art and learning if he really wanted to and if mankind were worth the effort.” And a remark which comes near the beginning of the letter and which could serve as the motto for the whole sketch expresses the climax of this bitterness: “You certainly will think, sweet little one, that it cost me enormous labor to reach this high stage of culture; on the contrary, I can assure you that nothing in the world was easier for me. . . . The cursed exercises of jumping from one tree to another . . . extorted many a drop of sweat . . . which I never noticed in becoming learned and wise.”

The sketch seems first of all a satire on rationalism, on the ability "to learn culture," on the shallow optimism of enlightenment and progress. That is basically the point of view of *Sturm und Drang* and of Romanticism: the agreeable, smooth norm of the philistine, his propriety, his self-sufficiency are dealt strong blows. So it is not accidental that this sketch is inserted among the *Kreisleriana* just as Berganza and Murr belong to Kreisler. The aping, petty, ambitious character is a foil for the completely abnormal, unproper Kreisler, who, inclined to madness, stands before us as a self-portrait of the author, although overdrawn in a grandiose fashion. Still, into the straight satirical picture of dry rationalism are drawn lines of a quite different and somewhat unexpected meaning. The belittling of *Genie* shows that this catchword, only recently the revolutionary motto of *Sturm und Drang*, now has turned into common possession, commonplace, and has been degraded to mean mediocrity. And if even depth of feeling (*die Tiefe des Gemüts*) is not spared, we sense here an attack against the very Romanticism that had by now been gradually acknowledged as the fashion of the time; more than that, it is a direct attack against the German love of *Gemüt* in general. We might even suspect certain derisive undertones dealing with Father Jahn's famous nature-loving student movement, especially when we remember that these noble Germanic activities were treated so amusingly in "Klein Zaches." In that story Hoffmann used the apocryphal tale told about Father Jahn, who in a scientific museum, was supposedly mistaken for an ape on exhibit.³

And yet the over-all impression of the little sketch of Milo is not one of gloominess. For Hoffmann knows how to tone down his bitter satire by an amiably playful irony. He does not, for instance, forget to make use of realistic apish traits. The direct transition from reality to the fantastic so characteristic of Hoffmann is found here although less than in many of his other works. And satire often takes the milder form of humor or even of self-irony. For Hoffmann has depicted himself not only in the figure of Kreisler, haunted by insanity; he can also be recognized in the overly ambitious—we should like to say overly normal—Milo.⁴ Thus the little satirical thrust against all haughty chatter

of genius, "if mankind were worth the effort," sounds almost like a defense of everyday human beings. As we have said, Milo must be considered as the contrast and complement of Kreisler, a character so immensely likable in all his weaknesses. Thus we always sense behind the Milo satire the true but dissonant man, the eternally awkward, the eternally losing romantic. This oscillation, this ironic ambivalence full of self-mockery moderates the grim satire which is by no means meant as a bitter condemnation of humanity.

* * *

Hauff's story, written only about a decade later, is quite different in its fundamental relation to life. It is well known that Hauff admired Hoffmann greatly and owed much to him. Likewise, it is nothing new that Hauff obtained the motif for his ape story from Hoffmann's "Nachricht".⁵ How has he used it?

"Der junge Engländer" is fitted into the Oriental frame story, *Der Scheik von Alessandria und seine Sklaven*. Yet it is completely German in content as in characterization. It is not accidental that Hauff often cloaks his figures in Oriental dress. He himself has something of the Oriental when he, so to speak, crouches down, gathers his audience around him, and simply starts his stories for the pure enjoyment of narration and because he likes to show the images of his phantasy. For "Der junge Engländer," to be sure, he needed a national background. The fundamental idea that outside appearance is deceptive, that the observer should look deeper into the phenomena to really grasp them is woven through the whole frame like a leitmotif. It is indicated in the fable of "Zwerg Nase"; it is clearly worked out in the story of "Almansor" that offers the key to the whole; and most of all it is impressed on us time and again in the frame story itself. We must keep that in mind when we approach the ape story.

In Grünwiesel, a little German town reeking of middle-class philistinism, a stranger appears who does not seem to fit at all into this environment. He is never found in the bowling alley, nor at the "beer evenings" of armchair politicians, and, quite in general, he is highly suspected by the curious society of Grünwiesel for his strict seclusion. Thus for ten years he lives in Grünwiesel as "the Stranger" (*der Fremde*). However, suddenly

all seems changed. A youthful companion, a "nephew," "a young Englishman," is introduced by the stranger into Grünwiesel society. The nephew learns German and dancing under the whip. His manners, strange as they seem, are accepted—even admired—as witty and original; and he and the stranger become idols of this small-town society. But finally it is revealed that the genius of a nephew, left behind by the stranger when he departs, is nothing but a well-trained orangutan.

In this story too—it is, by the way, a story with a real plot in contrast to Hoffmann's and Kafka's sketches—the ideals of the philistine are scorned as something that one can learn, that one can ape. In this story too the concept of *Genie* is satirized. True humanity is represented by the stranger, who slightly pedantically warns not to put too much trust in mere appearances. That seems more romantic, and certainly it is more peaceful, more balanced and harmless than Hoffmann's grim attitude. And yet Hauff is here basically far more realistic. The ape does not really become a human being. The social recognition he receives is based on an obvious mistake in the judgment of the philistines. The human qualities of the ape are nothing but animal training; they cannot be retained by the ape, for he lacks human consciousness. To be sure, even this story cannot be understood in purely rationalistic terms; realism often yields to satire. After all, an ape cannot learn how to talk, and he would not be accepted as a human being in society, not even in Grünwiesel society. But at least the aesthetic appearance of realism is retained. In this story we do not doubt the acquired human character of the ape. The sophistication of Hauff's irony and humor has won this victory over us. That shows the greatness of Hauff's art.

* * *

The realism in Hauff's story is only one of its shaping elements. Fifty years later in Wilhelm Busch's *Fipps der Affe* realism has become the basic form. Thus only a few insignificant details from Milo's letter could be used. For example, the way in which the apes are caught is the same in both stories: boots smeared on the inside with pitch are alluringly left behind and just through this bit of culture the apes lose their freedom. The use of this motif

was intended by Busch from the very beginning; it is found in the first plan of the story.⁶ Furthermore the ability in playing the piano is important for Fipps too. But Busch develops this theme still further and has his ape use hind-hands and tail too, so that he alone can play *quatre main* (chapter IX). This idea was only indicated by Hoffmann. The important difference is that Fipps remains a normal ape all through the story. Busch, like Hoffmann, often portrays animals in his verse comics and occasionally, as for instance in *Schnurrdiburr oder die Bienen*, he gives them real human traits. But far more frequently he clings to a scientifically accurate description of nature and so *Fipps der Affe* is by and large a completely realistic story. Busch even went to the zoological gardens to make specific ape studies there.⁷ Thus, on the whole, Busch's work is nothing but a loose collection of pranks *à la Max und Moritz*. Even if the accumulation of these pranks and still more the character of the other two animals borders on the impossible, even if we find here slight undertones of human traits which remind one of Walt Disney, an actual satire of man cannot be attained in this way. Nevertheless, at times we see rudiments of such a satire when Busch contrasts animal and man, specifically in chapter X, where Professor Klöhn delivers his crassly comical sermon on the dignity of man only to lose all his dignity a few moments later; and similarly, when Fipps, the animal, is the only one who keeps his head during the burning of the house (chapter XI). Busch, the pessimist, the admirer of Schopenhauer, otherwise remains the cool, disinterested observer who writes in pictures and draws with words. The satire of man is mainly based on the truthful representation of the details. However, it is this realistic position that is so immensely grim. The animals, to be sure, do not become human, but, on the contrary, one could say that the humans become animals. We know that Busch, as a follower of Schopenhauer, denied the free will of the individual. There is only one original will which leads to individualization and expresses itself in matter, plant, animal, man. The individual, once it is formed, must act completely according to its character as shaped by the original will. It must follow its drives and impulses. Thus the dividing line between man and animal, if it exists at all, is at least very unclear. And

so we find in another work the following lines that are undoubtedly meant seriously in spite of their ironic form:

O Vater, rief der Knabc,
Sind Affen denn auch Leute?
Der Vater sprach: Nun ja,
Nicht ganz, doch so beinah.

(*Werke*, v. VI, p. 282.)

This concept we sense also in the story *Fipps der Affe*.

* * *

Again we enter an entirely different world when we read Kafka's *Ein Bericht für eine Akademie*. It is the world of a largely expressionistic writer. Expressionism, on the whole a back-swing of the pendulum, turns away from the world of reality stressed by the preceding period of Realism, Naturalism, and Impressionism and returns, although in a different way, to the fantastic forms of Romanticism. While early Expressionism is revolutionary most of all in its disregard for traditional form, Kafka has long overcome these youthful extravagances: he combines a completely precise and simple style with an extraordinarily revolutionary content of ideas. That brings him very close to E.T.A. Hoffmann, whose works were, no doubt, well-known to him. It would be an interesting task indeed to compare these two torn minds and their literary background. Here we must confine ourselves to one specific application of such a comparison.

It is quite likely that Kafka proceeded from Hoffmann's sketch. The outward structure of Kafka's "Report" closely resembles that of Milo's letter. An ape is caught and follows the course that leads him into human society. He learns to shake hands, he learns to spit, he learns to smoke, and finally—and this is made the focal point by a number of details—he learns to drink. Human speech is only an accompanying phenomenon of this noble activity. Thus he has reached his goal. But this goal is only *ein Ausweg* (a way out). Freedom does not exist for him as a human being; only the animal knows freedom. The way out—life as a human being—seems then nothing but the ultimate renunciation of freedom. "I, a free ape," so he says, "took this yoke

upon me." A cold shiver runs over us when we read the grim condemnation of human freedom: "You mockery of holy nature! No structure on earth would stand up at the laughter of the apes at this sight." What then is humanity for Kafka? It almost seems as if this "way out" is nothing but a barred cage into which we are all locked at the time of our capture, as if we should call the theme of this story "Man as Ape," rather than "Ape in Captivity." (This reversal was already indicated by Hoffmann. There it is explained by the close feeling of his time for nature, while in Busch and Kafka the animalization of man affects us much more negatively. Kafka, by the way, occasionally forgets—intentionally or not—that he is dealing with an ape. He speaks of toe and heel.) Actually he has his ape say to the *hohe Herren von der Akademie* rather ambiguously: "Your apedom, gentlemen, as far as you have something of the sort behind you, cannot be any further away from you than mine is from me. But everyone who walks this earth feels a tickle at his heel, the little chimpanzee as well as the great Achilles." Freedom an animalistic tickle! That is indeed a negation of every idealism, a transvaluation of all values. The sex act too is considered purely an animal impulse, giving only physical satisfaction. (We find that concept all too often in Kafka's works.) That is complete and hopeless desolation. Everything is cold and factual. Nothing remains.

We need not emphasize that this self-portrayal—if really we can call it that—is one-sided and out of proportion. It is an act of self-chastisement and through it we see the image of an entirely different Kafka, a Kafka desperately in need of love and salvation, just as behind the mask of Milo we see the painful eyes of Kreisler. Besides, the reader is deceived about the grim seriousness of the content by the light, almost coquettishly playful irony of the great "religious humorist." And, as in all his works, he knows how to make his story credible. The magnificent realism of the details turns the impossible, the unheard-of, into a real, concrete happening.

The four stories we considered show in four different stages how the animal most similar to man can be contrasted with man or presented as man. Fipps almost completely remained animal. "*Der junge Engländer*" is human only by training; only by out-

ward deception can an all-too-credulous society accept him. Milo shows us that the philistine is hardly superior to an animal in his culture. For Kafka's Rotpeter, man is nothing but an animal deprived of freedom. To be sure, even Milo writes rather ironically: "Did not this captivity give us the greatest freedom? Is there anything more splendid than the formation of the mind which we have gained among men?" The depravity of man is the idea worked out by the four authors. That necessitates a rather pessimistic viewpoint, an ominous lack of balance. We cannot expect such an ape story from a Goethe, Gottfried Keller, or the later Thomas Mann. And in Hauff, who only negates the philistine, the human character of the ape is only an aesthetic "as if." However far the authors differ in their fundamental views, which may be more fantastic or realistic, their style is realistic throughout. That turns the eerie satire into amiable humor.

NOTES

1. I feel indebted to R. T. Clark, who stimulated me in this approach which he has applied in his far more comprehensive treatment of the literature of the bees.
2. The inspiration for Hoffmann might have been an anecdotal event in Tieck's life. Heinrich Steffens reports in his autobiography (*Was ich erlebte*, hrsg. Willi Koch, Leipzig, 1938, p. 145–146.) how he suggested to Tieck "to invent a piece in which the lover and an orangutan would be the same figure." Tieck accomplished this task with great ability. Although Steffens' book appeared long after Hoffmann's death, Hoffmann could have heard of this witty improvisation from friends of Tieck.
3. See E.T.A. Hoffmann's *Sämtliche Werke*. Historisch kritische Ausgabe von Carl Georg von Maassen, München, 1916, v. IV, p. lxxxix and pp. 336–337.
4. Ernst von Schenck (*E.T.A. Hoffmann, Ein Kampf um das Bild des Menschen*, Berlin, 1939, a book that offers excellent interpretations of Hoffmann's works) sees Milo only as an image of the enemy (*Kontterfei des Feindes*). "His picture is not alter ego of the poet." That seems an unjustified depreciation. It is true that the satire here is more bitter than in *Kater Murr*, but one cannot call the Milo sketch completely loveless; for that, it is much too playful.

5. See Hans Hofmann, *Wilhelm Hauff*, Frankfurt a. M., 1902, p. 64.
6. See Wilhelm Busch, *Sämtliche Werke*, hrsg. von Otto Nöldecke, München, 1943, v. V, p. 81. We must admit it is not certain that Busch knew Hoffmann's sketch. Otto Felix Volkmann, *Wilhelm Busch der Poet*, Leipzig, 1910 (Untersuchungen z. neueren Sprach- und Literaturgesch. 5) pp. 53–54 gives as the source for the catching of the ape W. Hey, "Noch fünfzig Fabeln für Kinder." The similarity with Hoffmann, however, seems stronger in several details than that with Hey. Besides, other traits from Hoffmann's sketch can be found in *Fipps der Affe*. Volkmann obviously did not know the Milo letter.
7. See Wilhelm Busch, *Sämtliche Werke*, v. V, p. 81. Further literature on Busch: Roelof Deknatel, *Wilhelm Busch der lachende Philosoph des Pessimismus*, Rotterdam, 1940 (Diss.—Groningen). This book also contains further bibliographical details.

Abraham Simon Wolf Rosenbach

(1879-1952)

WITH the death of Dr. A. S. W. Rosenbach on July 1, 1952, an era in the history of American scholarship ended. It was the era of a mass movement of books westward from Europe, of the building of whole libraries in a generation. During his lifetime this intensified flow of rare books and manuscripts to this country—which he to a large extent fostered and stimulated—brought to American libraries the resources of research material which they needed to nourish native scholars. The availability of such resources created centers of research in universities and libraries throughout the country, and there were attracted to them whole projects which formerly had had to be conducted in England or on the Continent. Shakespeare at Folger, Keats at Harvard, Boswell at Yale, Milton at Illinois, Wilde at California, Shelley at Pforzheimer's, and Blake at Rosenwald's—for these and other major collections Dr. Rosenbach alone was not fully responsible, but his imagination, his successes, and his belief in the importance of rare books were guiding forces and an inspiration.

To the world Dr. Rosenbach symbolized the super-colossal in rarities: Shakespeare Folios, Gutenberg Bibles, the Bay Psalm Book, the manuscript of *Alice in Wonderland*, and Button Gwinnett signatures, sensational items at sensational prices. He was the terror of the auction room and the book salesman without peer. His doings were front-page news throughout the world. But his popular fame and the publicity it received were only the tribute paid to the astronomical figures associated with his name. His lasting contribution was the stimulus his philosophy of collecting gave to the libraries and the collectors of the United States.

Basic to this philosophy was a respect for scholarship, and the belief that books were to be read and used and not merely hoarded. Unlike most dealers in rare books and allied fields, Dr. Rosenbach began his career as a scholar. Early in his life his family recognized his bent and encouraged it. His uncle Moses Polock, the rather eccentric old bookdealer who hated to sell

books, took him under his wing and filled his eagerly receptive mind with stories of booklore which turned the adolescent boy into a bibliophile. His oldest brother Hyman, a free-lance newspaperman whose chief personal interests were American literature and the early history of American Jews, dying early, left his young brother to carry on in those fields. At the age of eighteen, A. S. W. Rosenbach, in collaboration with his mother, wrote his first scholarly piece, an account of Aaron Levy, the Pennsylvania pioneer, for the newly established *Publications of the American Jewish Historical Society*.

These were the influences which molded at least a part of his career. Through them he had the vision to buy Hawthorne's own copy of *Moby Dick* for a few dollars when Melville was only another name in *Appleton's Cyclopaedia of American Biography*. With the same flair for what was going to be sought after, he early bought for himself the then almost unknown accounts of western travel. Upon a nucleus of American children's books inherited from his uncle he built a great collection and virtually single-handed created the present widespread interest in that field. These were the things he wanted for himself, and of course his personal enthusiasms flowed over into his business. As a result he became the trusted friend and adviser of such men as Clarence Brigham of the American Antiquarian Society, Lawrence Wroth of the John Carter Brown Library, and William Lingelbach of the American Philosophical Society, and was for many years an officer of the Historical Society of Pennsylvania.

By a man's books shall you know him. The largest, most important, and most cherished portion of Dr. Rosenbach's private library was the Americana section, now a part of the foundation which he and his brother Philip established to encourage the study of books. There are to be found a Bay Psalm Book, the first books printed in Mexico, an Eliot's Indian Bible, rows of the thin—but so rare—promotional tracts of the earliest colonial days, the first book printed in Philadelphia and the first book printed in New York, Franklin imprints by the score, pamphlets of the Revolution, volumes which told the story of the westward expansion, and some of the key books of American literature. A collection of books and pamphlets by Jews or relating to them

printed in the United States up to 1850, which formed the basis for his *American Jewish Bibliography*, he gave to the American Jewish Historical Society, of which he was for many years president. Also a trustee of the Free Library of Philadelphia, he gave that institution his children's books. Dr. Rosenbach by inclination was primarily an Americanist, and there are very few major libraries with significant treasures in the field which do not contain some extremely important books which passed through his hands.

If his interest in Americana began at home, his almost equally great devotion to early English literature came as a result of his studies at the University of Pennsylvania. From Felix Schelling he received his real training as a scholar. He graduated in 1898, having specialized in English, and then as a Fellow began working for his doctorate. A reflection of prior interests was his first article written for the University, an account of the Rittenhouse Orrery for the *Bulletin of the Museum of Science and Art*. But he was chiefly busy with his thesis, and in 1901 he was granted his degree of Doctor of Philosophy for his study of *The Influence of Spanish Literature in the Elizabethan and Stuart Drama*. The superb Cervantes items on the shelves at DeLancey Street are the collector's plums which matured from this seed of interest.

Dr. Rosenbach, however, almost became a professor of English. "The Curious-Impertinent in English Dramatic Literature before Shelton's Translation of *Don Quixote*," the product of his post-graduate work, appeared in *Modern Language Notes* in 1902, and the following year the *Jahrbuch der Deutschen Shakespeare-Gesellschaft* carried "The Influence of the 'Celestina' in Early English Drama." At the same time he became engaged in a far more ambitious undertaking. With his friend John Haney, Dr. Rosenbach planned and actually began work on a project which anticipated the bibliography of the *Cambridge History of English Literature*. A file was started and a prospectus printed announcing a "Bibliography of English Literature, Being an Exhaustive List of Works Relating to the History and Development of English Literature and Language; Including a Complete Finding-List of the Books, Pamphlets, Theses, Monographs and Magazine Articles Dealing with the Individual Authors." The project died

in its early phases; Dr. Rosenbach left the University and entered the rare book business.

Already the Rosenbach flair had had opportunity to show itself. In his university days attendance at book auctions was his vice. Hours supposed to have been spent studying books, he spent watching them sold, and occasionally buying them. One day his eye was caught by the Strawberry Hill Gray's *Odes* in a volume of miscellaneous pamphlets being sold at Henkel's, and for \$3.60 the lot was knocked down to him. Some months later, browsing through the volume, a title-page jumped to his attention. It was an unknown "first," Samuel Johnson's *Prologue* which David Garrick recited at the opening night of the Drury Lane Theatre in 1747. It was unique, and it was worth telling the world about. As a result his first formal publication appeared, a facsimile of "the hitherto undiscovered first edition" of the *Prologue*, with a preface by the eminent English man-of-letters, Austin Dobson, and an introduction by A. S. W. Rosenbach.

It was perhaps inevitable that anyone who had his feeling for old books should make a living from them. With the encouragement of and in partnership with his brother Philip, what had been a hobby became a vocation, and the history of the development of A. S. W. Rosenbach, Ph.D., into "Doctor R," the leading antiquarian bookman of the world, is a well-documented story. He told much of it in his two autobiographical volumes, *Books and Bidders* and *A Book Hunter's Holiday*, and more can be found in the *Festschrift* which his associates and friends contributed to in honor of his seventieth birthday. Yet, beneath this exciting and glamorous career lay the thinking of a scholar.

Business was indeed time-consuming during the fifty years he engaged in it, yet he found time to read, not only the books he sold but books about them, and to write as well. And the subject matter of his own writings was as diverse as his stock. There were the five volumes of the catalogues of the library of Harry Elkins Widener, the first major collection Dr. Rosenbach was responsible for forming, a historical sketch of his own Congregation Mikveh Israel, the delightful stories of a book detective in *The Unpublishable Memoirs*, an essay on some Wilde-Douglas letters, a preface to a new edition of *Moby Dick*, several lives for the

Dictionary of American Biography, articles on the libraries of the presidents and the first theatrical company in America, introductions to a life of Rebecca Gratz, the Limited Editions Club *Crime of Sylvestre Bonnard*, and the catalogue of the Lewis Collection of European Manuscripts, and the witty, privately printed *All-Embracing Dr. Franklin*.

But he wanted to encourage others to learn more about books; he wanted to give them an opportunity to hear bookmen talk on books they knew and loved. To accomplish this he established at the University of Pennsylvania the Rosenbach Fellowship in Bibliography. The first publication of the Fellowship in 1931 was a facsimile of Franklin's *Proposals Relating to the Education of Youth in Pennsylvania*, the work which promoted the foundation of the Academy of Philadelphia, later to become the University of Pennsylvania. Thereafter, bibliographers, men-of-letters, and scholars held the position of Fellow at Dr. Rosenbach's invitation, and year after year a series of lectures was delivered at the University, followed by the publication of those lectures, frequently expanded, in book form.

The distinguished books by distinguished authors which appeared in the series are the best tribute that could be paid to Dr. Rosenbach: characteristically charming bookish talk by Christopher Morley; a learned analysis of the important American books of 1755 and their backgrounds by Lawrence C. Wroth; a study of the handwriting of Jonathan Swift and some notes on Irish books by Sir Shane Leslie; a series of witty essays on what bibliography is not, by A. Edward Newton; the stories of the careers of a bibliographer, a collector, and a librarian of Americana by Randolph G. Adams; an account of printing in the 15th century and a detailed history of the Cambridge, Massachusetts, press by George Parker Winship; standards of bibliographical description for incunabula, early English books, and Americana by Curt F. Bühler, James G. McManaway, and Lawrence C. Wroth respectively; the story of the westward expansion of the country up to 1800, with a bibliography of books on the subject, by R. W. G. Vail; interesting facets of the history of early American newspapers by Clarence S. Brigham; studies in the history of early American papermaking by Dard Hunter; the

development of medical bibliography by John F. Fulton; and a sketch of the life and writings of the great Spanish historian and humanitarian, Bartolomé de Las Casas, by Lewis Hanke. Dr. Rosenbach honored his friends of the book world, and they in turn have built a lasting memorial to him.

During his whole life Dr. Rosenbach remained loyal to and interested in his alma mater. In 1927, at the height of his career, it recognized both his loyalty and his achievement in the world of letters by conferring on him the degree of Doctor of Fine Arts *honoris causa*. From May 20, 1932 until his death, he was an associate trustee of the University serving on the Board of Libraries, and he was always willing to share his knowledge for the benefit of the Library and use his influence on its behalf.

The position Dr. Rosenbach held in the book world cannot be filled again. Social change has ended the era he personified. It was perhaps fateful that by the last great sale in which he participated, the trend of years was reversed, and the last important Shakespeare collection available in private hands, which Dr. Rosenbach had brought painstakingly and patiently together over a period of several decades, went eastward across the ocean from America to Switzerland. There will be no more Huntingtons or Folgers or Clarks or Morgans; there will be no more men who can build vast libraries in their own lifetimes. But then there is less need for them now, for the wealth of resources is here. Now in less spectacular, but no less important ways will the building of collections go on. Dr. Rosenbach believed in the importance of rare books for scholarship, and that belief now prevails in libraries throughout the country. That was his greatest sale to America.

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The Academy Lotteries

A Chapter in the Early History of the University of Pennsylvania

PHILIP G. NORDELL*

OUR economists, engrossed in such serious financial problems as the effect of Federal deficits upon the price of a T-bone steak, hardly realize that great hordes of respectable American citizens, with wives and children to whom they gladly return every night, grab late editions of the papers on their way home to scan the latest Treasury balance. It is truly a wonderful phenomenon. The answer, of course, is simple: the last five digits of this number, omitting the cents, constitute the most frequently used base of operations of the "numbers racket." The "Reliable Double-Action Service Treasury Balance," or whatever the name may be, promises and actually pays not only a sufficient sum to buy a new car for whoever correctly guesses the last five numbers but also pays respectable amounts for all sorts of approximations.

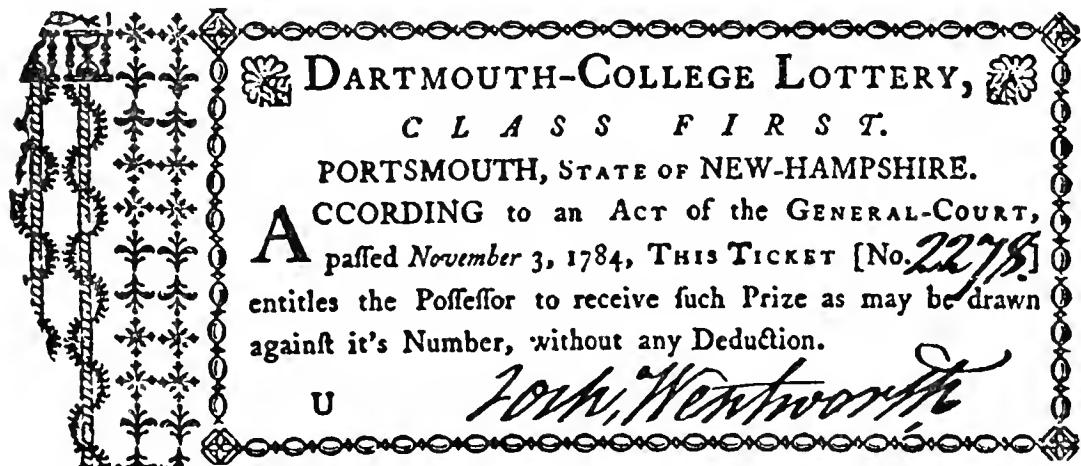
These same economists, as well as all of us, many a time pass by pretty girls seated at a card table outside a bank or a supermarket or at a transfer point on street car or bus lines, but in any event beside a new automobile, offering raffle tickets in a drawing for the benefit of a hospital or church in which the top prize is the banner-bedecked car.

Though raffles are winked at, the numbers enterprises are slightly furtive, but intrinsically they are not only related, but they are both essentially the same as the lotteries run by the hundreds a century and two ago, which themselves ran the gamut from respectable money-raising affairs to rackets. The chief difference between the modern lotteries—whether raffles or numbers games—and the lotteries of colonial vintage is that in the latter the adventurers were given a far better run for their money. As a group they got back 85%, more or less, instead of 50% or an unannounced microscopic percentage as today.

Almost all of my readers must have seen innumerable references to the old American lotteries run for the benefit of roads,

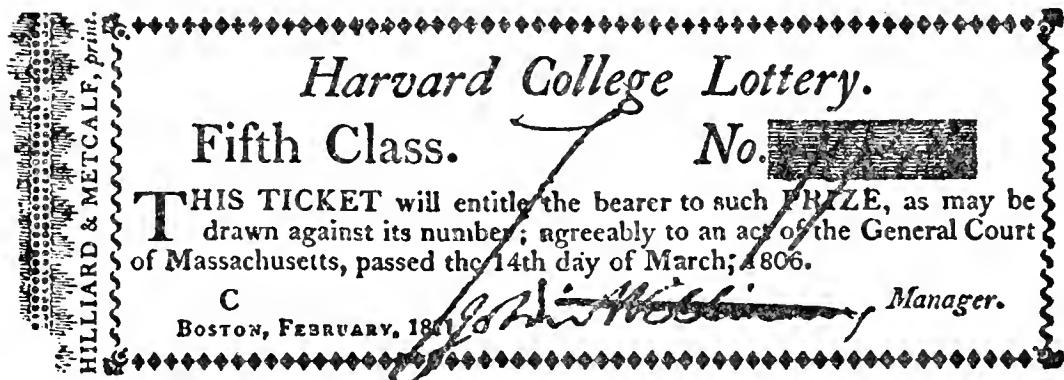
* R.D. 1, Ambler, Pa.

canals, court-houses, bridges, academies and colleges, churches, as well as empty provincial treasuries. Omitting earlier raffles, the big cash lotteries, either authorized or connived at by the most influential citizens, began in 1744 and continued to receive the palpable endorsement of most religious denominations till about 1830. As for their moral acceptance, there are at all times persons on both sides of the fence. What opposition there was did not become a serious factor till the 1790's nor a major impediment till around 1820 after a series of scandals had rocked public confidence. By this time lottery management had passed pretty much into the hands of professional operators primarily intent upon fattening their own pocketbooks. Instead of a total of a few dozen drawings a year of all lotteries, as before the Revolution, by the 1850's there were a dozen or so a day, with an army of "colossal" or "small fry" schemes to suit every purse. One state after another banned them—that is, they were made illegal. But they were not exterminated. They and their successors up to today's numbers games were simply driven underground to varying depths depending upon the fervor of sporadic reform campaigns.



Back in those benighted days when a fond father might present a lottery ticket to his young daughter, not only all the colleges making up the present Ivy Group except Cornell, but very nearly all the American colleges of pre-Revolutionary origin, as well as many founded later, either ran lotteries, or lotteries were run to help establish the various institutions. The first of several whose purpose was to aid in the founding of the present Columbia started

the procession in 1746, to be quickly followed by Yale's one and only venture in 1747. Here in Philadelphia the first college lottery to be drawn was for the benefit of the College of New Jersey, in 1750, still at Newark before its removal to Princeton. A few years later came the first of a series of seven for the Academy and College later to become the University of Pennsylvania. Other lotteries helped to establish or to strengthen those institutions known now, if not then, as Brown, Dartmouth, Dickinson, Harvard, Rutgers, Union, William and Mary, Williams, and the universities of Maryland and Delaware. There were still others. A ticket in the last Harvard lottery, one in the first Dartmouth lottery, and another in one that contributed toward the building of Nassau Hall (see p. 59) are illustrated.



Chronologically the Academy lotteries came fairly early in the procession. The seventh and last coincided in point of time with Princeton's third among her five, and antedated the first of Harvard's four. However, the distinguishing feature of the Academy lotteries lay not in the element of time but in their financial success. It has been customary for many modern writers, whose reactions to lotteries have been slanted by the prevailing climate of opinion, to generalize on their admittedly frequent failure to raise money as if there were something necessarily defective and unavailing in the whole system. The Academy lotteries are a shining example of that system at its best: other lotteries perhaps fell by the wayside, but these were run off efficiently, scrupulously and, to an amazing degree, profitably.

The University of Pennsylvania is indeed fortunate in having two such ably written histories as Thomas H. Montgomery's for

the colonial period to 1770, and that by Edward Potts Cheyney for the two centuries up to 1940. If Montgomery's is more notable for its wealth of biographical data and its rich nuggets from source material, Cheyney's is more serviceable by virtue of its lucid and judicial synthesis of the raw material into a condensed and connected story and its continuation up to recent times. Both are masterly accomplishments.

But it is not meant as any disparagement to say that both of them, in the specialized field of lotteries, are somewhat muddled. While Montgomery studied the old financial records of the College and was familiar with the Trustees' minutes, he could hardly have made a systematic examination of the indispensable newspaper advertisements of the lotteries. Cheyney, in respect to this subject, placed too much reliance upon Montgomery. For example, both of them state that the Trustees began raising money by lotteries in 1757, while Cheyney goes on to say that two were "successively launched in that year," and "there was no year till 1764 that did not see the drawing of a lottery for the College." As a matter of fact, the first began in 1754, only one was launched in 1757, none was drawn in 1760 and the last drawing took place in 1761. It is not merely a matter of dates.

When it is considered that our knowledge is fragmentary of most of the many hundreds of American lotteries, we may feel fortunate that the story of the Academy lotteries can be presented without an important gap or unresolved problem. It must be assumed that the reader has some familiarity with the history of the early College or will get what background he needs from Montgomery and Cheyney. However, for the sake of those readers who know nothing at all of the University's infant years, the briefest possible statement will be given of the steps by which it came into being. Benjamin Franklin's publication in 1749 of his pamphlet, *Proposals Relating to the Education of Youth in Pensilvania*, set on foot a subscription to raise money for an academy in Philadelphia. The subscribers chose 24 of their number as Trustees and at their first meeting, on November 13, 1749, the 19 then present signed the "Constitutions of the Publick Academy In the City of Philadelphia" and elected Franklin president and William Coleman treasurer for the first year. At that time there stood in Phila-

delphia, set back from the west side of Fourth Street between Market and Arch, the imposing "New Building," begun in 1740 as the result of evangelistic fervor generated by George Whitefield partly for the purpose of educating poor children.

The anticipated scholastic uses of the building did not materialize and in 1749 it lay dormant except for services conducted by the congregation of the second Presbyterian church. The *Constitutions* already signed expressed the hope that "poor Children shall be admitted and taught gratis." It was an easy matter for the Trustees of the New Building to transfer it to the Trustees of the Academy, the consideration being in part that the latter should pay the outstanding debts and agree to organize and run the Charity School. This agreement made in 1750 lies at the root of the present choice by the University of 1740 as its founding date. Classes of the Academy began early in 1751 and of the Charity School late that year. In July, 1753, the Trustees received the engrossed Charter of the Academy and Charitable School. Not later than 1754, but more probably in 1753, courses of a collegiate grade had begun and when the Trustees received another charter in June, 1755, incorporating them as "The Trustees of the College, Academy and Charitable School of Philadelphia in the Province of Pennsylvania," the last step had been taken in a progressive growth.

As for the financial backing of this yet tender institution, there are two brief but apt observations to be made. One is that higher education has rarely paid for itself and even now our colleges and universities, with all their income from tuition, endowments, gifts and alumni funds are hard put to it to stay out of debt. The other arises from human nature. Oftentimes institutions or enterprises start with a bang amid lots of enthusiasm and then, when the fireworks die down, there is a period of stress till either collapse takes place or a more lasting foundation is slowly and often painfully laid. So it was with the young Academy. Franklin's astute suggestion to spread out the payments of the subscriptions over several years, to bring in more money, was adopted, but by 1755 the inevitable dropping off had begun. The college ledger shows that money received from subscriptions, legacies, gifts, interest, etc., amounted in 1754 to £1062.2.0. In 1755 the sum

had dropped to £465.10.0; in 1756 it was £99.0.0; in 1757, £27.11.3; in 1758, £0.0.0; in 1759, £232.18.9; in 1760, £150.0.0; in 1761, £100.0.0; and in 1762, £0.0.0. The sharp decline beginning in 1755 meant that without some source of income other than tuition fees, the College would have operated heavily in the red.

Meanwhile, in Philadelphia, everyone knew how successfully several important local lotteries had been run. The first two were to help fortify the city against the Spaniards and French by constructing and fortifying the Association Battery; then the one already mentioned was drawn for the benefit of the future Princeton. This was followed by several for religious organizations. One of the latter, incidentally, was to pay for the steeple of the new church built by the Presbyterian congregation that were to vacate the “New Building” within three years.

There was one obstacle to a lottery that lay in the path of the Trustees, one they could not hurdle but could walk around as others already had. A provincial law forbade unauthorized lotteries and levied a fine of £100 upon any person or group convicted of setting one up. The Quakers as a whole, in contrast to almost all of the other denominations, inexorably opposed lotteries¹ and in view of the heavy vote of its members in the provincial Assembly, it was simply impossible to put through a lottery grant. But Franklin’s solution was typically simple. Provided the objective of the lottery was of public benefit, approved by a sufficient number of influential and respected citizens, all that had to be done was to pay the relatively moderate fine and go ahead and run the lottery. This was the procedure followed in Pennsylvania with all its early lotteries and as things worked out, the Governor himself frequently turned back to the various lottery promoters the half of the fine he received.

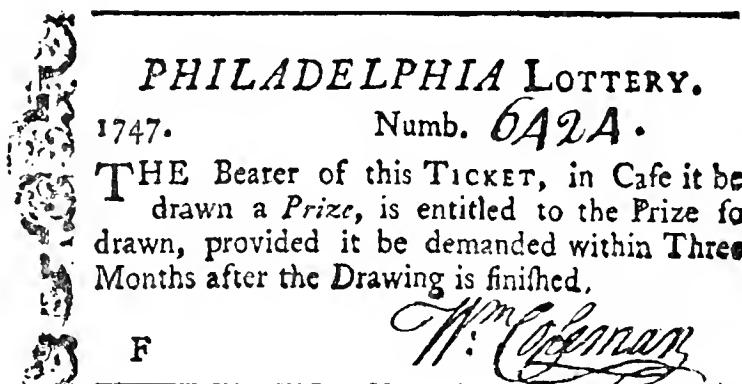
These early Pennsylvania lotteries, then, including the series of seven run for the Academy and College, were not authorized by the Province but had sufficient public approval to be run openly and safely. They were unofficially licensed by the remittance of the Governor’s share of the fine, by favorable recognition in one way or another by the Philadelphia Common Council, or by the approval of a substantial and influential sector of public opinion

including the clergy. By no means could anyone so inclined run a lottery; any lobby projecting a particular lottery had to be sufficiently strong and convincing to win the favor of one or more of these regulating forces.

Several years before the first of its own lotteries was set up, the infant Academy, almost at its very birth, received convenient aid from the profits of prior lotteries. The second of the two that raised money for the erection of the Association Battery had completed its drawings early in 1749 and was so successful that temporarily more than £2000 was available to be put out at interest. Several of the Academy Trustees had been actively associated in that affair. It was Franklin who first proposed the Association lotteries and was the prime mover of the whole business. James Logan of "Stenton" bought altogether £250 worth of tickets. William Allen, later the founder of Allentown, was one of the lottery managers and handled the accounts. William Coleman and 12 others of the Academy Trustees had been managers in one or the other of both lotteries. In their capacity as managers of those lotteries, they, along with others, had control as to how the money should be laid out. The Associators, then, had money to lend and the Trustees, pending the receipt of sufficient subscription money, needed ready funds to pay for the lot of ground and the New Building.

Accordingly, the third meeting of the Academy Trustees, on February 1, 1750, was a cut-and-dried affair. Both sets of Trustees were present—those of the New Building and those of the Academy. The latter first "agreed unanimously to borrow Eight hundred Pounds of the Treasurers of the Lottery, which was accordingly done," and immediately following this step £775 and a fraction of another pound were turned over to the old Trustees of the building to pay all the debts and encumbrances upon it. I am not suggesting that the £800 could not have been quickly borrowed elsewhere, but the circumstances being what they were, all that had to be done figuratively was for Allen, as treasurer of the Association funds, to take the money out of his pocket, hand it over to treasurer Coleman of the Academy Trustees, who immediately made a double play and passed it on to the old Trustees. As things actually happened, then, it is interesting to

observe that the first home and grounds owned by the Academy and College were paid for with money borrowed from the profits of the Association lotteries proposed and put in motion by Franklin.² A ticket in the first of these two lotteries, signed by Coleman, is shown here. It is one of the only two tickets known to have survived of those printed by Franklin before he became an inactive partner in his printing business.

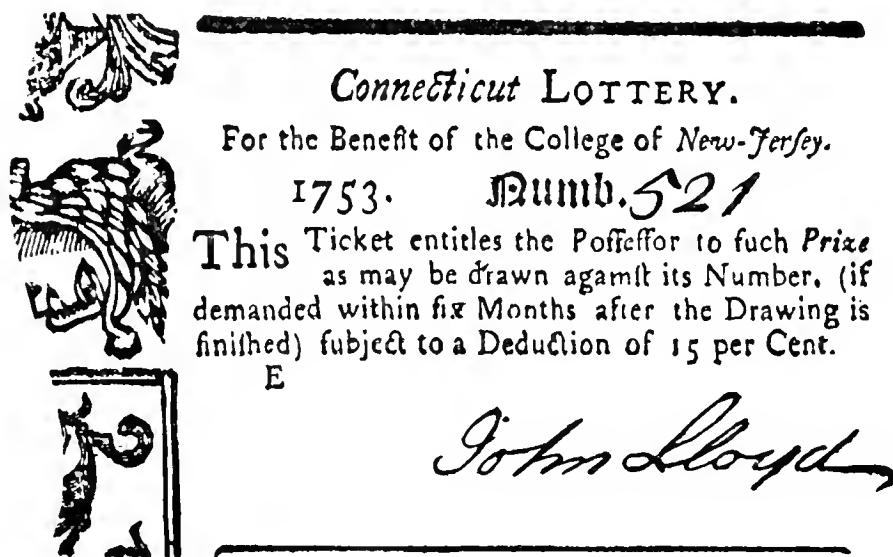


We have seen how the flow from the subscription fountains had become reduced to a trickle soon after 1754. Anticipating this drying up of their main source of income, the Trustees turned to the lottery springs. The first advertisement of the first "Academy Lottery" appeared in the *Pennsylvania Gazette*'s issue of October 3, 1754. It is explained:

The Purchase of Ground and Buildings for the Academy, the Alterations and Improvements that were necessary to accomodate the Scholars, and the furnishing of the several Schools, having, all together, prov'd an Expence far beyond their first Expectation, the Trustees, desirous as soon as possible to compleat their Plan, for the Good of the Publick and of Posterity, find themselves under a Necessity of obtaining some Assistance by way of Lottery; And as several Lotteries have, since the Founding of this Academy by Subscription, been carried on and encouraged here for the Benefit of Schools and Colleges in the neighbouring Provinces, 'tis hoped it will not be thought less reasonable that we should at length have one for the Benefit of our own. Those who in this way have lately contributed liberally to Matters of mere *external Ornament* to the City, will doubtless more chearfully encourage the Academy; an Undertaking which aims at *adorning* the Minds of our Youth with every Excellence, and rendering them really useful and serviceable Members of Society.

It is not known from whose pen this came, but, to judge from the last sentence especially, I shall leave it to my readers to agree or disagree with my feeling that it is similar to Franklin's spirit and style at their best.

The reader will note the reference to other college lotteries "carried on and encouraged" in Philadelphia, and will remember that one for the College of New Jersey had been drawn in the city in 1750. It was customary for the big lotteries to be advertised in papers in the neighboring provinces with an inevitable drawing away of local "loose money." Throughout 1754, almost right up to the appearance of the first Academy Lottery advertisement, the scheme of the New Jersey College's second lottery, though drawn in Connecticut, had been appearing in the Philadelphia papers with a list of numerous ticket sellers right here. There is evidence to show that the friends of the Philadelphia Academy viewed this ticket-selling campaign right under their noses as a form of poaching within their own preserves.



The scheme of the lottery given in tabulated form with the above blurb shows that there were 5000 tickets for sale at four dollars each, of which 1093 would be drawn as prizes ranging from three of 1000 dollars each to 1000 of five dollars each. In most of the lotteries of this period a straight deduction of 15% was made from the prizes before they were paid, but though a variation was tried in this scheme by which 20% was deducted

from the 93 largest prizes and nothing from the others, the deduction on the whole was equivalent to the ordinary 15%. In this case, it amounted to 3000 dollars, from which expenses and bad debts had to be paid, leaving the balance as the clear profit or "avails" of the lottery. The managers appointed were all Trustees, including Franklin, and of the 16, all but four were old hands in managing lotteries.

The values of American pounds varied from colony to colony and all were at a discount from the pound sterling. As a common medium of exchange between those colonies with different pound valuations, it was customary to use the pervading Spanish milled dollars familiar everywhere, and since lottery tickets were commonly sent into the other colonies, the schemes were frequently constructed upon this unit of currency. This Spanish milled dollar, widely known as the basis of our own United States dollar, was of exactly the same value as the old "piece of eight." The same lottery advertisement frequently shifted back and forth from dollars to pieces of eight, but when the managers got busy with their bookkeeping they did their figuring in pounds.

As clear evidence of the approval bestowed upon this first Academy Lottery by the Philadelphia Common Council, the Board resolved on March 1, 1755, a few days before the drawing began, to take up to 500 of the tickets and hold them at its own risk if that many should be unsold when the wheels began turning.

Even before the drawing had ended, the scheme of the "Second Academy Lottery"³ was announced. This was a complicated affair of four integrated "classes" or divisions, each to be drawn separately. Franklin again was one of the managers and from his correspondence we know he signed and sold some of the tickets. And again his handiwork may be visible in the notice, especially in the characteristic reference in the last sentence to doing good:

The yearly Expence of supporting the Academy, and paying the necessary Salaries, being found to exceed considerably the Income from the Scholars, the Trustees propose this Lottery for these Purposes, viz.
1. To repair and glaze the Hall, and fit it for the Accomodation of the Auditories at the Time of publick Exercises, and Commencements, when the Students in the College take their Degrees. 2. To purchase a

compleat Apparatus for Experimental Philosophy, with such Books in that Science as are most necessary. 3. To purchase some Ground-rents, towards establishing a perpetual Fund for the Payment of Salaries; and for the Support of the two CHARITY SCHOOLS, in which 70 poor Boys, under a Master and Assistant, are now taught to read, write, and cast Accounts; and 40 Girls, under a Mistress and Assistant, are taught to read, knit, sew, &c. and likewise to write under the Charity Master. Most of these Children, tho' between 8 and 13 Years of Age when admitted, had never been at any School, and it is thought must have been brought up in entire Ignorance, if it had not been for this Institution; which was begun, supported, and now greatly enlarged, entirely at the Expence of private Persons, tho' solely calculated for the Benefit of the Publick, and the Honour of the Province.

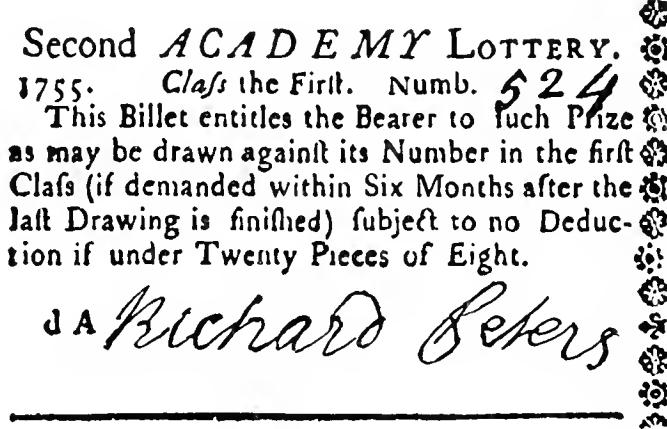
As therefore this Lottery is proposed for the most useful and charitable Purposes, it is hoped that it will meet with due Encouragement; for even its Blanks may be deemed Prizes, as the Satisfaction arising from a Consciousness of doing Good, is, to benevolent Minds, far more valuable than Money.

In regard to the "Apparatus for Experimental Philosophy," the most interesting item in the College account books pertaining to these lotteries is one entered in 1756 referring to bills of exchange amounting to £105 sterling sent by Franklin to his friend Peter Collinson in London, and paid for "with Money raised out of the first Lottery to buy Apparatus per B. F.'s first Lottery Accot." The item immediately below identifies one piece of the "apparatus" as an "Air Pump." The items do not necessarily mean that Franklin himself sold sufficient tickets to cover the cost, but they do mean that probably the largest acquisition of scientific apparatus owned by the College up to this time was paid for by lottery profits and acquired through Franklin as an intermediary.⁴ The reference to a "perpetual Fund" will be noticed—perhaps the first actual attempt to build up a permanent endowment.

Shortly after the Second Academy Lottery had concluded its drawings, the Trustees' minutes reflect the happy condition of the Treasury. On December 27, 1756, it was resolved that £2000 of the money "accruing to the College-Funds by the late Lotteries" be put out at interest.

At this same meeting Franklin was desired to submit a scheme of a third lottery but whether he did or not is of no consequence

in view of the fact that at this period his close connection with the Academy and College was coming to an end. Declining re-election as president of the Board, Richard Peters, who was to become rector of Christ Church in 1762, had succeeded him the previous May. Several years later Franklin wrote to a friend that the affairs of the Academy were "privately preconcerted in a cabal, without my knowledge or participation, and accordingly carried into execution. . . . The Trustees had reaped the full advantage of my head, hands, heart and purse in getting through the first difficulties of the design, and when they thought they could do without me they laid me aside."⁵ But without these strained relations his connection with the Academy lotteries perforce could not have continued. He left Philadelphia on his first journey to England on April 4, 1757, and when he returned in 1762 the last of them had been drawn.



The advertisement of the "Third Academy Lottery" was first published March 17, 1757.⁶ For the first time Franklin's name does not appear in the list of managers. The Trustees explain in the advertisement that the necessary expenses of the institution "have greatly exhausted the Monies acquired by former Lotteries, Subscriptions, and other Donations." Since they are aware that tuition fees alone have never covered the expenses of similar institutions, and want to place this one

. . . on a sure and reputable Foundation; for the Benefit of their Country and Posterity; they have therefore found themselves obliged to keep encreasing their Capital by small and easy Lotteries; which Method (while they are left unprovided of that public Support, due to

Undertakings of such a public Nature) they hope, will be encouraged by all who wish well to the Credit and Prosperity of their Country, with which the good Education of Youth, and the Advancement of useful Knowledge, are so immediately connected.

Along came the fourth lottery, advertised first on January 19, 1758, with a similar blurb. This was soon followed by the scheme of the fifth, first published October 26 of the same year. Tickets in these lotteries were offered for sale in newspapers from Newport to Williamsburg.

Hardly could the sale in this last of the series of “small and easy Lotteries” have made much headway when a thunderbolt struck, not out of the proverbial blue sky but as an effect of a mounting tension in the political entanglements of the Academy. In the November 30, 1758 issue of the *Pennsylvania Journal* appeared a long and violent attack upon lotteries by “Pennsylvanicus,” a writer whose identity is now unknown. He argued that lotteries are “*publick Nusances* of the most dangerous Kind, . . . injurious to Trade and Commerce. They are Snares to entrap and ruin the Weak and the Poor. They discourage Frugality and Industry. They are introductory of Idleness and Extravagance, the two principal Sources from whence all Manner of Evil flows.” This article was a powerful and devastating attack and in the light of all the vast number of condemnations of lotteries over the next century and more, no other denunciation calculated to arouse the emotions could have had a more potent effect than this. But viewed in a cold light, much of the argument was specious rather than solid, built upon a network of false assumptions: Lotteries lead to idleness, idleness leads to poverty, and poverty leads to ruin.

Having laid the groundwork, “Pennsylvanicus” got around to the Academy lotteries. “Can then a Blessing be rationally expected to attend an Institution supported by such *irreligious, uncharitable* and immoral *Means*?” Finally the writer concluded by calling upon the ministers both of the law and Gospel to meditate upon what Heaven required of them, and to suppress such impositions.

At first the Trustees seemed to ignore the attack, but at their second meeting subsequent to the publication of the article, when one or more of the faculty desired leave to answer the “false

Arguments brought against the Morality and Lawfulness of Lotteries," they voted unanimously and bravely that the professors should forbear because the authors of this and some other papers "were some low Creatures, who wrote from Passion and Resentment."

Whoever the author of this paper was, he was hardly a low creature; he was a master of casuistry if not of logic, obviously of high education, of facile pen, and versed in the arts of propaganda. Finding that no one had taken up the cudgels against him, he could contain himself no longer and in the January 25, 1759 issue of the same paper is another address of his in which he charges that the Academy lotteries, if allowed to proceed, will ruin the country. Patient men are human and perhaps the Trustees were beginning to fear that the sale of tickets would fall off, as indeed there is a hint they did. So a week later, in the next issue, a friend of the College set off a counterblast against the "enormous superstructure of empty *Declaration*, in which magistrates, ministers of the Gospel, gentlemen of the best characters of different societies, and denominations, are painted in the most frightful colours." Meanwhile the advertisements of the fifth lottery continued.

Space limitations forbid even the briefest summaries of the blows and counterblows as they continued in letter after letter except to say that as this intriguing word battle progressed, "Pennsylvanicus" admitted his principal purpose was to inform the public of "the partiality of the design and unlimited power confer'd by the charter of the Accademy on the trustees. The uses they have already made, and may hereafter make of it, to the destruction of your liberties." In his final blast, convinced that the people are turning against the lotteries, and that without their financial aid the College cannot endure, he expresses his belief "the province is in a fair way to get rid of an institution, which has been made an instrument in the most flagrant attempt to deprive us of every thing dear and valuable, or to oblige the trustees to consent to a more safe and generous charter, subject to such restrictions as may prevent any future abuses of it, such as the whole community will heartily join in, such as will preserve not destroy our liberties and happy constitution."⁷

We have now been carried along from a sortie upon the Academy lotteries to a frontal attack upon the Academy itself, and if we were to stop at this point the present writer, at least, would find himself floundering in the quagmire of pre-Revolutionary Pennsylvania politics, a subject that Cheyney himself said was too complicated to be explained even in his full-length history of the College.⁸ The attack on the Academy was a skirmish in the war between the Proprietary interests, with which “*Pennsylvanicus*” had connected the Academy, and the popular party represented by the Assembly, in whose service Franklin at this time was in England. The heat of the struggle is seen in the jailing of Provost Smith in 1758 by the Assembly on a charge of libel and his subsequent departure for England to appeal his case at the very time when “*Pennsylvanicus*” was firing his opening volleys.

It is not known to what extent the sale of tickets suffered in the Fifth Academy Lottery from this controversy. There were two short postponements of the drawing, but since the drawings of all the prior Academy lotteries, all extremely profitable, had also been postponed, absolutely no significance is to be attached to these brief delays in the fifth. The managers may have taken a great many unsold tickets at their own risk, as “*Pennsylvanicus*” suspected they had, but at any rate the profits again proved highly satisfactory.

But “*Pennsylvanicus*” and his allies—both those bent upon strangling the College as it was then constituted, and the perennial reformers who sought to abolish lotteries and plays—all these groups soon won a smashing victory. On June 2, 1759, Governor Denny laid before his Council “An Act for the more Effectual Suppressing of Lotteries and Plays,” sent up to him by the Assembly. The majority of the Council present were Trustees. They told the Governor “this Bill was principally intended to destroy the College, Academy, and Charity School of this City, which was a noble and useful Institution; That some members of the House were known to have thrown all possible discouragements on it, and failing of Success they had probably fallen on this method to prohibit Lotteries, from which of Late the Academy had drawn its principal Support.” They went on to say that 80 poor boys and 40 poor girls were instructed gratis in the

Charitable School; that 130 boys (presumably those in the Academy) were taught languages, writing and mathematics; that in the College were more than 20 students instructed in oratory, Euclid, logic, ethics, and natural and experimental philosophy; that the expenses of the institution amounted to £1300 a year with only £500 coming in from tuition and consequently without the lotteries there would be an annual deficit of £800; that the lotteries already drawn to cover this deficit "had been uprightly managed by people of the best Credit in the Province . . . that there had been no Lotteries carried on in this Province other than for the most necessary and Charitable purposes," and much more.

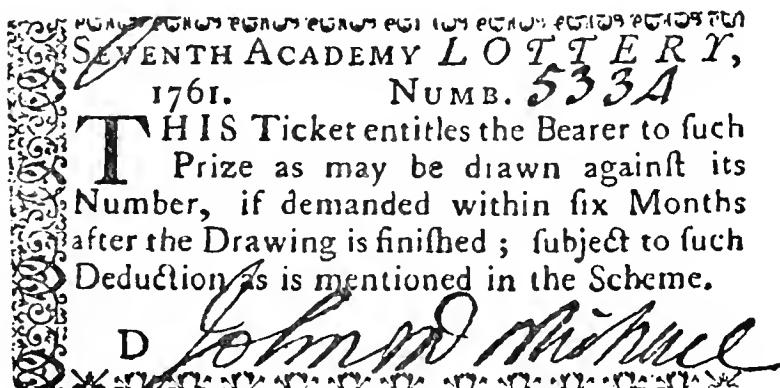
Nevertheless, the act passed on June 20 not only raised the fine for running unauthorized lotteries to a prohibitive £500, but in addition prohibited the buying, selling and advertising of tickets in any lottery drawn in the Province or beyond its jurisdiction, with a fine of £20 for each offense. The act effectively closed the door against all of the big, public lotteries originating in the Province and I suppose the sponsors of the bill dreamed they had dealt a crippling blow to the College and a mortal blow to its chief means of support. Little did they dream that Pennsylvania was on the eve of the wildest lottery speculation in its history.

The ban continued throughout 1760 and then in the *Pennsylvania Gazette* of January 29, 1761, appeared a proclamation by Denny's successor, Governor Hamilton, dated the preceding day, to the effect that his late Majesty, George II, by order in Council dated September 2, 1760, had declared void six acts including the one suppressing lotteries and plays. Issued at the Governor's behest by his secretary, Richard Peters, this sudden reversal in the fortunes of the Academy and the defeat of its enemies must have filled Peters with relief and elation.

There is an old saying about making hay while the sun shines, and it applied in 1761 as well as it applies today. More than two weeks before the appearance of Hamilton's proclamation in the *Gazette*, Peters had the news, and we can imagine he walked with a lighter step than usual to the Trustees' meeting on January 13, when he informed his fellow members of the good tidings. They not only agreed, but they agreed unanimously, to run a sixth

lottery. The scheme prepared in advance was immediately accepted, managers were appointed, the tickets⁹ were printed by January 22, and so speedily did the Trustees act that in the same issue of the *Gazette* that contained Hamilton's proclamation there also appeared the advertisement of the "Sixth Academy Lottery."

As quick as the Trustees were, the same January 29 issue of the *Gazette* also contained an advertisement of a lottery for finishing St. Paul's Church in Philadelphia and before the year was out no less than 27 advertisements of different Pennsylvania lotteries appeared in the papers: for Presbyterian and Episcopal churches, for paving streets, for building bridges, and, among others, one



for the College of New Jersey and a seventh for the Academy and College in Philadelphia. Perhaps the drought of 1760 had made the people thirsty for gambling; perhaps the various money-thirsty groups and organizations feared another dry spell would soon follow, as it did. Whatever the cause, such a rage of lottery speculation developed in 1761 that the papers were plastered with schemes and prize drawings.

So fast did the tickets sell in this sixth lottery that one of those rare instances in the history of lotteries occurred: the date for the drawing was advanced and adhered to! The advertisement consisted of an interesting epitome of the progress made by the institution, in line with former statements, but it also contained a highly interesting new objective for the anticipated "avails": The money was to be used in part "to erect such additional Buildings as the Growth and present Circumstances of the Institution render absolutely necessary."

This matter of additional buildings became so urgent that it soon became the most pressing subject, along with the money to pay for them, taken up at the various meetings of the Trustees throughout the year. The buildings were discussed at the March 10, 1761, meeting, “but on inquiring of the Treasurer what might be the state of the Academy Funds and finding that they had not beforehand above £3000. a great part of which was in the hands of the several Managers of the Lotteries, it was dropt for the Present as being utterly inconsistent with our capital.”

The subject could not rest. By the time of the next meeting, April 14, six new Pennsylvania lotteries had already been advertised including a second one for St. Paul’s, and the public’s appetite for them showed no sign of letting up. Dr. Peters spoke of the new building and he went on to say that he “found it was most heartily desired by a very great Number of respectable People in the City, and that as the Town was now full of Officers & Strangers many gave it as their opinion that a Lottery to raise £2000. for such a useful Purpose would soon fill,” whereupon it was agreed “that the present good Disposition that the People were in should not be lost.” At a meeting a week later the scheme was agreed upon and it was decided to take in as managers, besides some of the Trustees as usual, “twelve or fourteen of the most popular Citizens & of the most reputable Gentlemen in the neighbouring Provinces.” The “Seventh Academy Lottery” was thus first advertised two days later on April 23, and since its blurb throws so much light on the affairs of the institution at that time, it should be quoted:

THE Trustees cannot omit this Opportunity of returning their most sincere Thanks for the Countenance and Encouragement which this Institution has so often received from their Countrymen; by Means of which they have been enabled to go a great Way in bringing it to the Perfection and final Establishment, which they always had in View. There are at present upwards of 70 Youths belonging to it, from distant Places, who are now lodged in a dispersed Manner, through various Parts of the City, and a far greater Number might be expected, if they could be accomodated in a COLLEGIATE WAY; by Means of which the Expence would be much less, and the Discipline far better. The following Lottery is therefore proposed to erect those ADDITIONAL BUILDINGS, which may be necessary for this Purpose; in the Plan of

which two Charity Schools will be included, as the Boys Charity School is an old inconvenient wooden Building, and the Girls School almost ready to tumble down. As the compleating this Undertaking will be a great Ornament to the City, as well as a great Advantage to it, by the Number of Youths which it will draw to this Place, it is not doubted but it will be encouraged, as well by the Inhabitants, as by Persons at a Distance, for whose Benefit it is very particularly calculated.

Though the scheme was double the size of each of the four previous ones, Peters was able to report at the meeting of the following September 8 that "the 10,000 Tickets of the seventh Lottery agreed to in April last had been disposed except about 200, which were taken at the Risk of the Academy, and that the Lottery which was drawn in July last would net above £2,000 clear of the Loss by the Academy Tickets and of the Charges of drawing." This was a marvelous accomplishment considering the maximum possible gross profit of the scheme was £2250.

At the same meeting, Coleman spoke of the "ruinous Condition" of the Boys' Charity School and he urged speedy action to build a new one. But since no immediate steps to begin the construction had been taken by the November 10, 1761, meeting, some of the members of the Board declared "the Publick had a Right to expect from us agreeable to the Scheme of the last Lottery that we should erect some additional Buildings for the accomodation of such Youth as came from distant Places."

As a result, a committee was appointed to take the matter in hand and also to consider means of increasing their funds. It reported on November 28 and gave its opinion that during the ensuing year a building should be erected 70 feet long and 30 feet wide, with accommodations on the ground floor for the two charity schools, a kitchen and dining room and on the two upper floors lodging rooms for the students, the whole to cost £1500. The Trustees then voted to have the structure erected provided the expense should not exceed the net profit of the last lottery. Accordingly the next year it was built. It was recorded in the minutes of the February 8, 1763 meeting that it had been completed except for such details as shelves and cupboards. The dormitory stood just to the north of the "New Building," at right angles to it. A model of the building—the first dormitory of the

College—is at present on display on top of one of the card catalogue cases in the Library, and a somewhat different representation of the building appears in an illustration accompanying an article by William L. Turner on the early buildings in *The General Magazine*, Autumn, 1950.

The open season for lotteries did not last long. A revised bill to curb them was passed February 17, 1762, which succeeded for nearly a decade in suppressing any that were unauthorized, but as early as 1765 the long succession of those authorized by the Pennsylvania legislature began with an omnibus lottery act for the benefit of ten Episcopal churches.

The committee report of November 28, 1761, contains a sentence that has been and might easily be misinterpreted by anyone not familiar with the lottery background at that time: "We are therefore of opinion that as the Method of Lotteries which is at best but precarious and attended with much Trouble to Individuals must speedily fail us, we have no resource but once for all to betake ourselves to the Generosity of the Public." No moral overtones are intended here. Time after time the vote of the Trustees for lotteries was unanimous.

It is true they were at best but precarious. In the first place, it could not be expected that lotteries could be run forever by connivance; at any time the legislature might clamp down hard on them. Even in the other provinces where lotteries were granted from time to time, the great majority of petitions failed. Of the five lotteries run by the College of New Jersey, it could wheedle a grant for no more than one of them from its own province. In the second place, when lotteries ran simultaneously, as in Pennsylvania in 1761, it inevitably followed that more tickets were offered than the public could absorb, with a resultant glut in which the devil took the hindmost. It is also true that lotteries were troublesome affairs, but raising money by subscription was also troublesome, and this method failed many a time, too.

I have already mentioned that these Academy lotteries were highly profitable. They were drawn during the early, unsullied, artless period of American lottery activity when the managers were amateurs, directly associated with the institution to be benefited, happy to give their services without charge. After the

Revolution, though maintaining the highest integrity in their duties, they more and more demanded and received payment in the form of a small percentage of the scheme price of the tickets—as three per cent on all and an extra two per cent on those sold. This meant, that if the deduction were 15% to cover everything, up to one third of the profits right away were earmarked for the managers. With all the other expenses and loss on unsold tickets, especially if the lottery had to compete with others, often-times it followed that a net profit of only 3 or 4% or so was made, while not rarely the lottery wound up with an actual loss.

Very much to the contrary, the Academy lotteries established a sustained level of successful operations hardly ever surpassed, and then usually for a shorter series than seven. The expenses, consistently low, were accounted for as follows: commissions paid to various newspaper publishers who acted as agents in the sale of tickets; losses on a few unsold tickets, including those returned to the managers by agents too late to be sold elsewhere; cost of printing the tickets and broadsides; and wages paid to clerks in connection with the drawings.

The following table lists the amounts proposed to be raised (the 15%), the sums or avails actually produced, and the relation the latter bore to the former.

<i>Lottery</i>	<i>Amounts proposed to be raised</i>	<i>Net sum produced</i>	<i>Percentage raised</i>
No. 1	£1125	£1059.14. 3	94.1%
No. 2	3522 (as revised)	3073. 8. 3	87.2%
No. 3	1125	921. 1.11	81.8%
No. 4	1125	990.17. 8	88.0%
No. 5	1125	956. 7. 2½	85.0%
No. 6	1125	990.18. 4½	88.0%
No. 7	2250	1693. 9.11¾	75.2%
	£11397	£9685.17. 7¾ ¹⁰	84.9%

Converted into dollars, the total amount proposed to be raised by the schemes was 30,392, based on a total possible sale of 65,000 tickets valued at 215,000 dollars. The net sum produced in dollars was 25,829.01, or 84.9% of the maximum possible amount.

But this total profit may fairly be increased slightly. The prize list of the seventh lottery was published on August 13, 1761.

Peters told his fellow Trustees on September 8 that the net profit would exceed £2000, a sum he could have calculated pretty closely with the drawing completed. It is true that the net profit of the seventh lottery as shown in the above table, taken from Coleman's entries in the College ledger, is less than £1700. But there are important factors bearing on that figure. While the accounts of the other six lotteries stand completed, showing the final net profits, that of the seventh is left open. It may fairly be presumed that the managers had not all turned in their final collections when the entries ceased to be made in these accounts. Lottery tickets were commonly sold on credit; with slow collections and ensuing suits it happened more frequently than not that several years would elapse before a final accounting. Thus, there are several substantial credits posted to the third, fourth and fifth lotteries, drawn in 1757, 1758 and 1759, respectively, as late as 1764. Now Coleman resigned as treasurer in that year and was succeeded by Edward Shippen, Jr. In the seventh lottery account there is one entry of money received by Shippen in 1764 but none for any other year. If balances had come in as late as 1764 on lotteries drawn in 1757 to 1759, it may well be that balances in the seventh lottery drawn in 1761 were received after 1764 and the reason they do not appear in the ledger account of the lottery may be that Shippen, with no prospect of future lotteries, decided to enter the residual receipts from that source in a miscellaneous account. A factor that may have delayed the closing of the seventh lottery account is that the list of managers comprised many persons not directly connected with the College, whereas in the former lotteries all except two were Trustees.

All this simply shows that the net profit of the seventh lottery probably was much higher than the sum shown in the above table. If it were exactly £2000, then the total net profit of all the lotteries would have been £9992.7.8. But since Peters said the seventh would produce more than £2000, we are justified in saying that the net profit of the series of seven lotteries run for the Academy and College in Philadelphia was about £10,000 Pennsylvania currency, or 26,666.67 Spanish milled dollars, being slightly better than 87.7% of the maximum possible amount that could have been raised.

To continue the summary, with the tuition fees regularly producing less than half of the needed income, the original subscriptions paid on an installment basis continued to be the main reliance through 1754, thereafter tapering off. Provost Smith was busy from 1762 to 1764 in England collecting the funds that kept the institution going till 1771, when a bare treasury necessitated a quest for new subscriptions. The lottery profits probably started rolling in in late 1755, reaching a high level the next year, and up to the early part of 1764, furnished the institution with its principal source of ready funds.

Montgomery wrote of lotteries as “this fictitious and abused system as a means of drawing money . . . for needed wants under the deceit of offering . . . chances of gain.”¹¹ At the time of the publication of his *History*, 1900, lotteries were in such disrepute owing to the octopus Louisiana State Lottery that no reputable citizen dared mention the term without aspersion. It has been seen there was nothing fictitious about this means of raising money. It did not, of course, create wealth, but neither did gifts; if we want to quibble and say the money from gifts was used to create wealth, then the income from lotteries did the same thing. And there was no deceit for the adventurers who knew very well that they as a whole would not get back as much as they put in. I agree it has been an “abused system.”

A word should be said as to surviving tickets. There are close to a score for the second lottery (one or more of each class) and several for the seventh. No tickets are known to exist for the others. One in the third class of the Second Academy Lottery is in the University Archives.

Of the 24 original Trustees, 21 were living when the first lottery was first advertised. Of these, 15 were managers of one or more of the lotteries. Of those subsequently appointed up to 1761, the proportion who were managers is much heavier, suggesting possibly that as fledgling Trustees they were handed this troublesome work. Those who served most frequently were Dr. Peters and Samuel McCall, Jr., merchant, each of whom acted six out of seven times in this capacity. William Allen was a manager in five of the lotteries, during all of which time he was Chief Justice of

the Supreme Court of the Province. Franklin, of course, as we have seen, was a manager in the first two.

Chronological data giving dates of first insertions of the schemes, when first drawn, and the prize lists are given in a table below. Apart from mentioning a resolve by the Trustees at their meeting of November 7, 1781, to petition the General Assembly for a lottery grant to raise £750, which did not materialize, our story has come to an end. To summarize, the lotteries in the University's early history paid for its first dormitory, for much of its early scientific apparatus, and gave the institution its chief support for eight years.

CHRONOLOGICAL TABLE

FIRST LOTTERY

Scheme: Pa. Gazette, Oct. 3, 1754.

First Drawn: March 10, 1755 (Pa. Journal, March 11, 1755).

Prize List: Pa. Gazette, March 25, 1755.

SECOND LOTTERY

Schemes of all 4 classes in *Pa. Gazette*, March 11, 1755.

Class 1

First Drawn: Aug. 18, 1755 (Pa. Journal, Aug. 21, 1755).

Prize List: Pa. Gazette, Aug. 28, 1755.

Class 2

First Drawn: Dec. 15, 1755 (Pa. Gazette, Dec. 18, 1755).

Prize List: Pa. Gazette, Dec. 25, 1755.

Class 3

First Drawn: Probably March 8, 1756 (Pa. Gazette, March 11, 1756).

Prize List: Pa. Gazette, March 18, 1756.

Class 4

First Drawn: June 16, 1756 (Pa. Gazette, June 17, 1756).

Prize List: Pa. Gazette, July 8, 1756.

THIRD LOTTERY

Scheme: Both G. and J., March 17, 1757.

First Drawn: Probably Aug. 17, 1757 (Pa. Journal, July 28, 1757).

Prize List: Both G. and J. Supplement, Sept. 1, 1757.

FOURTH LOTTERY

Scheme: Pa. Journal, Jan. 19, 1758; Pa. Gazette, Jan. 26, 1758.
First Drawn: May 29, 1758 (Pa. Gazette, June 1, 1758).
Prize List: Pa. Gazette, June 15, 1758.

FIFTH LOTTERY

Scheme: Pa. Gazette, Oct. 26, 1758.
First Drawn: March 12, 1759 (Pa. Gazette, March 15, 1759).
Prize List: Both G. and J., March 29, 1759.

SIXTH LOTTERY

Scheme: Pa. Gazette, Jan. 29, 1761; Pa. Journal, Feb. 5, 1761.
First Drawn: Probably March 24, 1761 (Pa. Journal, March 19, 1761).
Prize List: Both G. and J., April 9, 1761.

SEVENTH LOTTERY

Scheme: Both G. and J., April 23, 1761.
First Drawn: Probably July 20, 1761 (Pa. Gazette, July 2, 1761).
Being Drawn: July 23, 1761 (Pa. Gazette, July 23, 1761).
Prize List: Pa. Gazette, Aug. 13, 1761.

NOTES

1. There were exceptions among individual members. Franklin in his *Autobiography* describes the subterfuges resorted to by some of the Quakers rather than openly oppose the Association lotteries he had set in motion to defend the city. James Logan, the most prominent of the original Trustees when the Academy was first organized, had earlier expressed his approval of Franklin's first lottery in spite of his lifelong Quaker affiliation. The impact of the Association lotteries with their military connotations led a number of Quakers to sever their connections with the Society, including Coleman, the first treasurer of the Academy.
2. I do not want to quarrel with those who accept the founding date of the University as 1740 and therefore this sentence has been carefully weighed. I do not say the first home and grounds of the *Charitable School* were paid for in this way, but I do say the first home and grounds of the *Academy* and *College* were.
3. Each of the Academy lotteries after the first included in its title the ordinal number representing its position in the sequence.

4. Previous to this purchase, the scientific apparatus owned by the College included a protractor, quadrants, compasses, a “sliding rule” and other instruments valued at £40.18.0 Pa. currency; a small telescope and “camera obscura,” the gift of Lewis Evans, and a pair of 18-inch globes given by Franklin.
5. Franklin to Ebenezer Kinnersley, July 28, 1759, quoted by Cheyney, p. 109.
6. Montgomery, pp. 376–377, quotes a good part of the blurb, but omits the part mentioning “former Lotteries.” The Trustees’ minutes before this date also refer to former lotteries. Yet he says this March 17, 1757, advertisement was the “first scheme” and then Cheyney follows him in giving 1757 as the date of the first Academy lottery.
7. The eight letters appear in the *Pennsylvania Journal*, Nov. 30, 1758, Jan. 25, Feb. 1, Feb. 8, Feb. 22, March 1, March 8 and March 15; 1759.
8. Cheyney, in his *History*, pp. 104–125, includes a section on the political history of the colonial College, which reviews this provincial struggle adequately for the general reader.
9. The Trustees at this January 13 meeting specified that David Hall of the *Gazette* should print the tickets. This designation of Hall has been misinterpreted as a rebuke to Bradford of the *Journal*, in whose paper the “Pennsylvanicus” letters had been published. But Hall had printed all the tickets in the previous Academy lotteries and Bradford continued to print advertisements of this and the remaining lottery.
10. Montgomery, *History*, p. 377, gives the sum as £9457.7.7½, but from a close study of the day book as well as the ledger it is evident that several items contributing to the total escaped his notice.
11. Montgomery, *History*, p. 376.

Printers and Poets

Notes on Giolito and the Petrarchists

BODO L. O. RICHTER*

WHATEVER the origin of the sonnet may be ascribed to, the joining of two "strambotti" (the opinion held by Biadene, Foresti and others), or the development of one stanza from the old "canzone" (Rajna and Wilkins), there can be no question that it was Petrarch who brought the greatest degree of perfection to this form. This conquest of the form, this complete mastery of the technical aspects of verse, remained the supreme challenge during the Renaissance and for generations of poets to come. Furthermore, the imagery and sentiment of the "poeta laureatus" were considered exemplary, in spite of the spontaneous rebellion of a few.

Certainly Bembo's exhortations to consider Petrarch the supreme authority in language and lyric would not have been sufficient to set in motion legions of sonneteers if a predisposition for poetic exercises in the Petrarchan vein had not existed. The acceptance of the mimetic principle by all those who wanted to attain literary proficiency was one important factor. Another was the essential agreement between Petrarch's concept of love and the Ficinian transmutation of the Platonic Eros, lightly garbed in the various "trattati d'amore." The courtly circles considered the writing of sonnets, the casuistry of discussions on love, and the practice of preciosity matters of good etiquette, as exemplified in the "salon" of Catherine de Vivonne a few decades later. As Mario Praz¹ expresses it: "Lo scrivere sonetti petrarcheschi era considerato requisito indispensabile non solo di gentiluomini e dame, ma anche di cortigiane."

If we look at the printed record, which is the basis for imitation by others, we can easily retrace the main currents of Petrarchism. We can also see the salient position occupied by the *Rime diverse* among the Italian anthologies of the sixteenth century. Our best

* University of Pennsylvania.—This article is based on the author's unpublished Ph.D. dissertation *The Place of the Minor Italian Poets in the Works of Ronsard and du Bellay*, Univ. of Pennsylvania, 1951.

guide is Hugues Vaganay's *Le sonnet en Italie et en France au XVI^e siècle*, which is more than a mere bibliography.² Beginning chronologically with the year 1501, we encounter first the *Sonetti e canzone* of Boiardo, followed by a steady stream of publications. † The Chariteans, Serafino Aquilano, Pamphilo Sasso, and Chariteo himself, form the first strongly represented group. Titles like *Sonecti, capituli, canzone, sextine, stanze, et strambotti* tell us something about the poetic forms in vogue during the early "cinquecento." As we reach the year 1530, the two biggest waves of Petrarchism converge. The six Italian works listed by Vaganay under that year may well be mentioned here, if we keep in mind that 1530 does not represent a sharp dividing line:

V. 1: Aquilano Seraphino. *L'opere d'amore . . . Sonetti, Egloghe, Epistole . . . Vinegia . . .*

V. 2: *Rime di M. Pietro Bembo . . . Venegia . . .*

V. 3: [Olimpo, Baldassare]. *La Gloria d'amore, nella quale si contengono strambotti, sonetti, capitoli . . . Venetia . . .*

V. 4: *Sonetti e canzoni di m. Jacopo Sannazaro. Napoli . . .*

V. 5: *Sonetti, e canzoni di m. Jacopo Sannazaro gentilhuomo Napolitano . . . Roma . . .*

V. 6: *Venturini Venturino [da Pesaro]. Rime. Milano . . .*

A composite chronology of the publications between 1530 and 1545 clearly shows the survival of the old school of imitators. At the same time Petrarchists of the Bembist group become more numerous. Noteworthy are also the names of Aretino and Berni, both Antipetrarchists, of Tebaldeo, meritorious disciple of the Chariteans, and of Luigi Alamanni, "un exilé florentin à la cour de France" (*cf.* H. Hauvette).

1. **LUIGI ALAMANNI**, *Opere Toscane*. Lyon, 1532, 1533; Florence, 1532; Venice 1533, 1542.
2. **JACOPO SANNAZARO**, *Rime*. Venice, 1532 [twice], 1534, and 1543 "appresso Gabriel Gioli[to] di Ferrarii"; Florence, 1533.

† It may be permissible to note here that the University of Pennsylvania Library possesses a strong collection of Italian 16th century literature, and that many of the "rime", "sonetti", and "canzoni" mentioned in this article can be consulted in its Rare Book Collection, in identical or other contemporary editions, *Editor*.

3. ANTONIO TEBALDEO, *L'opere d'amore*. Venice, 1534, 1544.
4. FRANCESCO BERNI, *Sonetti*. Ferrara, 1537.
5. PIETRO ARETINO, *Stanze*. Venice, 1537.
6. VITTORIA COLONNA, *Rime*. Parma, 1538; [?], 1539; Florence, 1539; Venice, 1540.
7. NICCOLÒ DELFINO, ANTONIO BROCCARDO, FRANCESCO MARIA MOLZA, *Rime . . .* Venice, 1538.
8. BALDASSARE OLIMPO DA SASSOFERRATO, *Potentia d'amore*. Bologna, 1538; *Gloria d'amore*. Venice, 1539; *Opere diverse poetiche*. Venice, 1538-39.
9. SERAFINO AQUILANO [CIMINO], *Opera*, quasi tutta di nuovo riformata, con molte cose aggiunte. Venice, 1540 (i.e. 40 years after Serafino's death).
10. PIETRO BEMBO, *Rime*. Venice, three imprints in 1544 (though there had been no ed. since 1535).
11. LODOVICO DOMENICHI,³ *Rime*. Venice, "appresso Gabriel Giolito de Ferrari," 1544.
12. LUIGI CASSOLA, *Madrigali*. Venice, Giolito, 1544.⁴

Among the years 1530-1545, 1544 must hold our attention because of the three separate appearances of Bembo's verse and the publication of poems by two of his followers, Domenichi and Cassola. We also note that the poetry of these men is by no means limited to the sonnet, but that—entirely faithful to the model *Canzoniere*—other forms are represented. Finally, we cannot overlook the increase of Venetian imprints and the ascendancy of the Giolito press, reflecting indirectly the concentration of Bembism in the Cardinal's home town.

If any doubts should still have persisted in the mind of the Renaissance reader that a new generation of Petrarchists was winning the field, these doubts must have been dispelled by the appearance of the *Rime diverse di molti eccellentiss. autori nuovamente raccolte. Libro primo*. In Venetia, appresso Gabriel Giolito di Ferrari. The year was 1545. This was the first volume of a collection that was to become the most important anthology of Petrarchan verse, and this not only for Italy, but also for France and Spain.

“With Gabriel Giolito de’ Ferrari we reach not only the most prolific printer in Italy of the century but also the man who exercised the greatest influence on his contemporaries and successors in the form and decoration of books, if not in typography.”⁵ Gabriel was the most important of a family of printers who came originally from Trino in Piedmont (Trino di Monferrato) and later settled in Venice. In scholarly achievement the Giolitos could not rival the Estiennes in France or the Manuzio brothers in Venice. Also, on purely technical grounds, it seems impossible today to put the two great Venetian establishments (Manuzio and Giolito) on the same level. The praise of an important contemporary literary figure like Torquato Tasso, nevertheless, is significant: “S’io dovessi eleggere, eleggerei il Giolito o il Manuccio che sono i migliori che al tempo nostro esercitino questa non meno utile che onorata professione.”⁶ This view gets its proper perspective when we consider that the glory of the Manuzio house had begun to fade several decades earlier, with the death of Aldo in 1515, while the best work of the Giolitos, done by Gabriel, was still within Tasso’s experience. The finest Giolito imprints came out between 1545 and 1555.

The real importance of the Giolito family in the field of literature is that its members ventured to break with the classical tradition. Gabriel has been called the chief propagator of Italian literature in the vernacular during the sixteenth century, not only as a printer, but also as a distributor.⁷ As a dealer, Gabriel watched in particular for potential “best sellers,” and it is, therefore, easy to understand why he should have favored writers like Aretino, Bembo, Franco, Dolce, Bernardo Tasso, Giraldi, Doni, Muzio, a selective list which nevertheless contains a good sampling of Petrarchists and Antipetrarchists. This proves that Gabriel gave a hearing to literature in the making, and that he was by no means partial to Bembism, at least not to the point of suppressing dissident voices. Of course Petrarch and Boccaccio were still popular authors during the sixteenth century. The many commentaries on the *Canzoniere* constitute just one of many proofs. Gabriel knew very well that two of the “tre corone” had kept and increased their audience, while Dante had fallen into a disfavor that was to last until the nineteenth century.⁸ The figures are

eloquent: during the “cinquecento” there were 34 editions of the *Commedia*, as against 167 of the *Canzoniere*, and Gabriel Giolito’s share among the latter was 22, spread between 1542 and 1560. He honored the *Orlando Furioso* 28 times, and Ariosto’s lyrical and satirical verse six times. He also printed Ariosto’s comedies, thus making a pretty complete inventory of this poet, and showing again his flair for an active market.

If we check, on the other hand, what S. Bongi records under the names of classical authors, we find that Gabriel invariably issued their works in Italian translations. Several of the translators were themselves Bembists: Cicero’s *De oratore* and the Discourses were rendered by Lodovico Dolce, who actually was in the employ of Giolito. Dolce paraphrased rather than translated the Latin originals, and when it came to Greek, he worked from Latin versions, as did so many others behind a false front of erudition. Of particular interest to us is the “*traduttore traditore*” of Pliny, Plutarch, Xenophon, and Boethius, Lodovico Domenichi, already mentioned as a poet and anthologist under no. 11. Domenichi was Giolito’s proofreader, and as such was in a position to push his own works far beyond their merit. Flamini singles him out as a fabricator of “*rifacimenti*,” master polygrapher, plagiarist par excellence.⁹ For a doctor in law his sense of literary property was unusually lax, even for those lenient times.

Insofar as the *Rime diverse* are concerned Domenichi’s services should, however, not be underestimated. He, an anthologist by avocation, could easily help Giolito in one aspect of his publishing and selling enterprise: the issuance of collections of verse, not undertaken until then on a large, multi-volume scale. In fact, the printing of anthologies of wide scope is one of the new ventures generally associated with the name of Giolito. Domenichi could always count on an attractive typographical presentation: italic letters not too unworthy of a comparison with the Aldine, a generous page distribution, a decorative title page, and the well-known soaring phoenix, trade symbol of the firm, appearing in the colophon. It was up to Domenichi to present poets already popular, and to discover others that fell in with the best Petrarchan-Bembist tradition. In this role he was quite efficient and successful. For instance, his inclusion of much of Giovanni

Guidicciioni's verse gave that estimable poet his first chance to appear in print. And he gave several others, "degni d'essere eletti" [Bk. I, Dedic.], an opportunity to appear before the public, if not with their first, then with their best or latest material.



The total of nine volumes in the *Rime diverse* collection (1545–1560), not all of them Giolito imprints, has interesting facets from a purely bibliographical viewpoint. In reference works less specialized than Bongi's *Annali* or Vaganay's catalogue of sonnets, this anthology still occupies the largest space given to Renaissance works in this category, as, for instance, in Brunet's *Manuel du libraire*, in Graesse's *Trésor des livres rares et précieux*, and in Haym's *Biblioteca italiana*. The complete set of nine "est très difficile à trouver," as Graesse says. Brunet and Bongi use similar terms. The reasons for the rarity of the complete collection are mainly two: first, that several of the volumes appeared in two or three editions which are not identical among themselves; second, that rival printers, bent on cutting into Giolito's brisk business, issued volumes of their own which they dressed up as if they had formed part of the original enterprise.

Another factor which contributes to the scarcity of the volumes in perfect state is that in many copies certain names are heavily blocked out in ink. These cancellations tell us something about the progress of the Counter-Reformation. The Council of Trent was opened by Paul III in 1545, the year of the first issue of the first volume of Giolito's *Rime diverse*. The irreverent Pietro Aretino was represented with eleven poems, the longest of which, a "capitolo" consisting of 88 "terzine," begins the second installment of Aretino poems near the end of the book. Although the

holy words GIESV, CHRISTO, IDDIO occur fairly frequently, stressing the sanctimonious side of the “Scourge of Princes,” the name of Aretino is obliterated in the text and in the index of most copies of the second edition [1546].¹⁰ Furthermore, Aretino’s share is cut down from 11 to 9 pieces in 1546, the “capitolo” and the final sonnet having been eliminated. It seems unlikely that his position as an Antipetrarchist should have caused these changes within the space of one year. At any rate, Domenichi, the anthologist and the Bembist, could quickly supply replacements from his own stock, and 16 sonnets written by him fill the last pages of the second edition. Similarly, Girolamo Fracastoro saw his laurels cut down in the 1546 issue. His score in the 1545 edition was two, in the 1546 edition naught. Regardless of the tact he evinced in the way he handled the delicate topic *Siphilis, sive de morbo gallico* (1530), the title alone may have been incriminating after 1545.¹¹

While Aretino obviously ran into some serious opposition, and one might surmise the same for Fracastoro, there were enough other changes in the 1545 and the 1546 text to warn against generalizations. In all, ten names that had been present in I¹ (1545) were dropped in I² (1546); at the same time fifteen new poets were introduced in I², generally with one to four sonnets. The over-all range shifted only narrowly, with sonnets still leading over all other forms of poetry in a proportion of about 10:1. The only sharp increase was registered by Domenichi, with seven sonnets in I¹, as against 17 in I², for reasons already mentioned. All told, the 370 pages of the first edition (not counting the unpaged index) were increased to 374, and the number of poems from 529 to 555, in the second edition. That some of the attributions of individual poems might be questioned results from the errata leaf at the end of I¹, where we read that the two last sonnets printed under Vincenzo Martelli’s name really belong to Pietro Barignano; but then, in 1546, they are still ascribed to the former, while Barignano, as if by way of compensation, gets a sonnet by Martelli allotted to him, plus six by a certain Niccolò Tiepolo. Similarly, a “capitolo” changes hands between 1545 and the following year. The errata leaf also admits to other slips: “Gli altri [errori] si rimettono al giudicio di chi legge.” The third edition of vol. I, issued in 1549 (I³), is identical with the 1546 text, with the excep-

tion of a different headpiece on the first page of poetry, and the absence of the phoenix on the colophon.

A *Libro secondo* came out in 1547, followed by a second, altered edition in 1548. The title is not identical with that of the *Libro primo*. The compiler of volume II is not known, and the prefatory letter by Giolito to Sigismondo Fanzino della Torre gives no clues. The second edition contains less material than the first, i.e. 177 leaves as against 184. Some wrong attributions are again corrected (if we can accept the corrections as valid) and a fairly radical excision of poems has taken place: 16 by Antoniacopo Corso, 24 by Niccolò Amanio, and others. Neither the nature of the poems removed, nor the personality of their authors suggest reasons. Perhaps it is best to abide by Apostolo Zeno's verdict on these changes.¹² Two further departures from Book I arrest our attention: the appearance of a new category, continued later, "Incerti autori" comprising no less than 49 poems, and, perhaps the most striking change of all, the disappearance of Bembo's name, the leader, whose poems stood at the head of the phalanx, and whose name was the only one to be shown in large capitals in the index of I¹⁻³. Could the exclusion be ascribed to Bembo's death in 1547, had his literary rule really been resented that much? This is unlikely because Giolito himself reprinted the Cardinal's *Rime* in 1548, and another edition came out in Rome during the same year.

Up to this point we have, then, a new volume every year: 1545 (I¹), 1546 (I²), 1547 (II¹), 1548 (II²), 1549 (I³). In view of this continued success it is not too surprising that someone should have wanted to follow suit in 1550, in an attempt to reap some of Gabriel's harvest. Andrea Arrivabene, also of Venice, seized the opportunity, fair or foul, by collecting and printing his own version of a *Libro terzo*, "In Vinetia al Segno del Pozzo. M.D.L." The emblem of the well was the trade-mark of Arrivabene's printing establishment, although for this particular book he used the fount of Bartolomeo Cesano, whose name appears at the end of the volume.

Giolito tried to recoup the loss in 1552 with his own *Libro terzo*, prepared by Lodovico Dolce, who had already done so much editorial work for his employer, especially on Petrarch's *Rime*.¹³

Several bibliographers, among them Brunet and Graesse, believed Arrivabene's 1550 edition of III to be an authentic Giolito, making the Giolito 1552 edition a second printing. In point of fact, Gabriel had not added to the series in 1550 or 1551.

After Arrivabene had set the precedent, Anselmo Giaccarello quickly printed a "Libro quarto" which had been compiled by a certain Ercole Bottrigar. This volume was issued in Bologna in 1551, hence also still before Giolito's *Libro terzo* (1552). The title-page of the Giaccarello imprint carries no reference to "Libro quarto," but the first page of the dedication makes perfectly clear that this book was intended as a continuation of the series. Except for the title-page, the typographical presentation is in every way an imitation of the Giolito volumes. One would be tempted to say that I, II, and IV were issued by the same press. Not all copies of IV are uniform in content; the rarest are those which have six sonnets by Castelvetro published under his name while in most copies they appear under the name of Lorenzo d'Aquaria. Annibal Caro thought that this was merely a pseudonym, which the formulator of the Three Unities had used so as not to appear "a dime a dozen" ("... per non andare in dozzina") among the sonneteers. This sarcastic comment throws some light on the flaming antagonism between Caro and Castelvetro, which eventually led to the latter's excommunication and peregrination to Lyons and Geneva. This feud dated back to Castelvetro's remark that Caro's "canzone" "venite all'ombra de' gran gigli d'oro" was unfaithful to its model in Petrarch's *Canzoniere*.¹⁴

The progress of the *Rime diverse* since 1549 might be summarized at this point: III (Arrivabene, 1550); IV (Giaccarello, 1551); III (Giolito, 1552). From then on matters become even more involved. In the same year [1552] Giolito brought out a *Libro quinto*, made up of the sheets of his *Libro terzo*, except for Dolce's dedicatory and explanatory letter to a certain Ferrante Carrafa, a group of "rime" by the Marchese del Vasto at the beginning, and considerable substitutions and additions after page 384. The publisher's intent is obvious: he wanted to dress up an old book as a new one, by changing the beginning and the end. We can feel with Dolce when he says that at the time Giolito's *Libro terzo* came out in 1552 "molti . . . restarono sorpresi, se

esso fosse nuovo volume, o il medesimo già dato in luce da altri [i.e. Arrivabene].” Three years later, in 1555, this “fifth” book was printed once more by Giolito, indicating that the readers still favored the original creator of the series. Although no changes are pointed out by the “editore-libraio,” the innovations are more considerable than in any of the other cases mentioned. It is easy to understand why those volumes carrying *Libro terzo* on the title-page should be among the rarest of the series: they had been on the market only for a very short time when Giolito realized the conflict with Arrivabene’s *Libro terzo*, and quickly made “terzo” into “quinto.”

The title-page of Giolito’s *Libro quinto* (1552) reveals one important departure from the earlier volumes of the anthology: while I–III (Giolito and Arrivabene [1545–1550]) made no particular reference to the provenience of the poets (it was only stated that they wrote in “lingua toscana”) we are now introduced to “diversi signori illustri napoletani,” indicating a shift in emphasis from the Bembist school in Venice to the Neapolitan group,¹⁵ Angelo di Costanzo, Bernardino Rota and Luigi Tansillo. Indeed, a third phase of Petrarchism dates back to the *Libro quinto*, although the reputation of the southern group did not really spread before 1558, when the Sessa Brothers published in Venice *I fiori delle rime de’ poeti illustri nuovamente raccolti et ordinati da Girolamo Ruscelli*.

The remaining volumes in the 9-volume series of *Rime diverse* still follow a meandering course. Volume VI was again pirated by Arrivabene, and published “Al segno del Pozzo” in 1553. The printer actually was Bonelli. The compiler was the same Ruscelli mentioned above, whose efforts remain largely connected with the Neapolitan school, although there is no specific reference to these poets on the title-page of the *Libro sesto*. This volume was probably reprinted three times during the same year, and definitely twice; the re-issuing was necessitated by the drastic changes in Ruscelli’s long *Discorso* at the end of the book. This pamphlet contains the story of another enmity, that between Ruscelli and Dolce. Both were editors and proofreaders, Dolce for Giolito, and Ruscelli for Valgrisi. The feud centered around two editions of Boccaccio’s *Decamerone*; first came Ruscelli’s,

which was well received in 1551; Dolce, jealous, did one for Giolito in 1552, and from then on it was a barrage of mutual insults. Ruscelli's abusive harangue, occupying no less than 56 pages in the first printing of the *Libro sesto*, set Dolce's friends in motion. Surprisingly enough, Ruscelli yielded to their entreaties, and withdrew the remaining copies. The book was re-issued with an innocuous "Discorso" of less than five pages, in which Dolce is no longer mentioned.

If the *Libro sesto* had no special virtues, it had at least become notorious. Twenty years later Girolamo Simbeni, another Venetian printer, felt that there was still some profit in it. He changed the frontispiece, substituted an *Epitalamio* of six stanzas for Arrivabene's dedication, and fraudulently altered the colophon—a clear case of "supercherie." This volume never achieved any particular distinction, but Ruscelli's (Arrivabene's) *Libro sesto* has remained the rarest of the series, and I have not been able to see a copy. Almost equally scarce is volume VII. This is again an authentic Giolito, published in 1556: *Rime di diversi signori napoletani*. . . . A certain Marcantonio Passero had gradually assembled the material for this anthology, sending installments of it to Dolce, and expressly calling his contributions a present, thus absolving Dolce beforehand.

Volume VIII is a challenge to a master detective. It has been called "one of the secrets of Italian bibliography." While there is a *Libro nono* (Cremona, Vincenzo Conti, 1560, compiled by Giovanni Offredi), no volume on record carries the designation "ottavo." But one volume must have been considered the eighth, unless another publisher again wanted to make sure to have a share in the celebrated series by placing himself on the ninth rung of the ladder, jumping the eighth; this is the most plausible explanation. Book VII had been published in 1556, IX was printed in 1560. The guesses concerning VIII naturally result in a search for similar collections that appeared during this four-year span. Among these, the Ruscelli collection *Fiori delle rime* seems the most likely, despite the different make-up of the title. The publication date (Venice, 1558 and 1559) fits rather well. Moreover, the Neapolitan school is strongly represented. But to state flatly, on the basis of scanty evidence, "c'est le 8^e vol. du recueil," as

Graesse and Brunet do, seems venturesome. Bongi's theory is chronologically congruous; he favors *De le rime di diversi eccellentissimi autori nuovamente raccolte. Libro primo.* Lucca, 1556. One may nevertheless ask, what entitles us to make "primo" into "ottavo"? It should be pointed out that Ruscelli largely reprinted the material from Giolito I and II, though with substantial additions; of the 55 items by Francesco Maria Molza in I and II, all but two are reprinted in the *Fiori*, and one of these two was Molza's praise of Dolce—whom Ruscelli despised! I believe that the *Fiori delle rime* was primarily an anthology of anthologies, a secondary compilation such as Dolce himself prepared for Giolito from *Rime diverse* material (a volume in 16mo, publ. in 1556).

There remains the problem of representation or distribution of the various poets and poems in these volumes. Basing a comparison on poets appearing in I and II², we count 138 authors. By comparing their appearance beyond 1548, we see that only a few of them continued as strong favorites. In order to bring out the trend in popularity more clearly, some parallels from Arrivabene's III (1550), and Giolito's III [=V] (1552) are included. The figures in the columns indicate the total number of poems.

	1545 ¹⁶ I ¹	1546 I ²⁻³	1548 II ²	1550 III [A]	1552 III [G]
1. Andrea Navagero	6	6	—	1	1
2. Antonio Brocardo	2	2	—	2	—
3. Annibal Caro	11	11	4	4	6
4. Alessandro Piccolomini	—	3	—	—	1
5. [Abbate] Aless. Giovio	6	6	—	—	1
6. Annibal Thosco	1	1	—	—	—
7. Antonio Mezzabarba	—	1	17	—	—
8. Antonfrancesco Doni	1	1	1	—	1
9. Allessandro Campesano	—	4	—	—	—
10. Bartolomeo Ferrino	3	3	7	—	1
11. Baldessare Stampa	3	2	10	19	—
12. Battista della Torre	7	7	—	—	—
13. Bartol. Carlo Piccolomini	3	3	—	—	—
14. Baldessare Castiglione	3	3	—	1	—
15. Benedetto Varchi	6	6	18	8	—
16. Bartolomeo Gottifredi	9	18	13	4	—

	1545 ¹⁶ I ¹	1546 I ²⁻³	1548 II ²	1550 III [A]	1552 III [G]
17. Bernardino Tomitano	6	6	26	11	—
18. Bernardino Daniello	8	8	—	—	—
19. Bernardo Capello	7	7	1	47(?)	1
20. Bernardo Tasso	1	1	3	1	1
21. Camillo Besalio	—	17	—	41	2
22. Collatino di Collalto	3	8	—	—	—
23. Cornelio da Castello	2	2	1	—	—
24. Cosmo Ruscellai	1	1	—	—	—
25. Camillo Caula	1	1	—	—	—
26. Claudio Tholomei	1	2	15	1	1
27. Emanuel Grimaldi	4	4	—	—	—
28. Francesco Cop[p]etta	3	3	—	—	—
29. Francesco Maria Molza	30	33	22	40	6
30. Francesco Capodilista	1	1	—	—	—
31. Fortunio Spira	13	13	—	12	—
32. Francesco Sansovino	4	4	—	—	—
33. Francesca Baffa	2	2	—	—	—
34. Francesco Coccio	6	9	—	—	—
35. Gio. Andrea Gesualdo	11	11	—	—	—
36. Giulio Camillo	22	22	1	2	—
37. Giovanni Mozzarello	19	18	—	4	—
38. Giovanni Guidiccione	73	73	—(?)	23	—
39. Giovanni Cotta	1	1	—	—	—
40. Gio. Giorgio Dressino	3	1	—	2	—
41. Gio. Andrea dall'Anguillara	1	1	—	—	—
42. Girolamo Volpe	3	3	1	—	—
43. Gio. Antonio Volpe	3	3	—	1	—
44. Girolamo Mentovato	—	3	—	2	—
45. Girolamo Mutio	4	4	1	1	—
46. Girolamo Parabosco	12	14	10	5	—
47. Gandolfo Porrino	1	1	—	13	—
48. Gio. Battista Susio	1	1	9	4	—
49. Giuseppe Betussi	2	2	—	—	—
50. Giorgio Belmosto	1	1	—	—	—
51. Hipp. Cardinal de Medici	1	1	—	—	—
52. Hercole Bentivoglio	4	4	8	4	4
53. Iacopo Antonio Benalio	—	2	—	—	—
54. Iacopo Marmitta	2	2	1	1	—
55. Iacopo Salvi Bolognese	3	3	—	—	—
56. Lodovico Ariosto	3	3	1	10	—
57. Luigi Alamanni	10	10	18	—	2
58. Laodomia Forteguerri	—	1	—	—	—

	1545 ¹⁶ I ¹	1546 I ²⁻³	1548 II ²	1550 III [A]	1552 III [G]
60. Lancilotto Gnocco	—	3	—	—	—
61. Laura Terracina	—	1	—	—	—
62. Luigi Raimondi	2	2	—	—	—
63. Lodovico Dolce	30	30	18	—	1
64. Lelio Capilupi	2	2	1	17	29
65. Lodovico Domenichi	7	16	26	—	—
66. Marco Cavallo	4	4	—	—	—
67. Marchese del Vasto	2	2	—	4	26
68. Marchesa di Pescara	4	4	—	6	—
69. Monsignor della Casa	2	1	—	—	—
70. Nicolo Thiepolo	—	1	—	9	—
71. Nicolo Amanio	7	8	—	4	—
72. Ottaviano Salvi	5	5	—	—	—
73. Pietro Bembo	17	17	—	—	—
74. Pietro Barignano	18	14	20	—	—
75. Paolo Canale	4	4	1	—	—
76. Paolo Crivello	—	6	7	—	—
77. Pietro Aretino	11	9	1	34	2
78. Pier' Antonio Chiocca	4	4	—	—	—
79. Scipio Costanzo	1	1	—	—	—
80. Thomaso Castellano	12	18	—	—	—
81. Triphon Gabriele	2	2	—	1	—
82. Vincenzo Martelli	4	4	—	15	—
83. Vincenzo Quirino	1	1	2	—	—
84. Veronica Gambara	11	11	1	3	—
85. Ugolino Martelli	1	1	4	2	—

One of the most striking features of this list, aside from the sudden disappearance and resurgence of certain names, is the fact that Arrivabene's *Libro terzo* maintains a much stronger continuity with regard to the earlier Giolito volumes than Gabriel's own third book. The reason for the latter's radical departure no doubt was that he saw himself compelled to compete by presenting new poets. This he did successfully by adding upbound Neapolitans to the Venetian group. While most of these southern poets also revered Bembo, they wrote more directly under the influence of Sannazaro, whose own Petrarchism was enhanced by the more passionate strains of the Latin love lyrists. Angelo di Costanzo (1507–1591), a personal friend of Sannazaro's, is represented with 31 poems in Giolito's III–V. Angelo's friend Ber-

nardino Rota (1508–1575), also from Naples, is represented with 33. The superior talent of Luigi Tansillo, who harmonized his own emotions with the cadence of nature, gets a chance to express itself on 22 different occasions. Naturally, many other new recruits had to fill the depleted ranks, not only in III–V but already in the *Libro secondo*. There were no less than 35 newcomers in II, and also a troublesome group, “*Incerti autori*,” which comprises 49 poems in II, less in the subsequent volumes, but soaring to 102 in Ruscelli’s collection. In this last anthology, the position of the Neapolitan school was definitely solidified.

NOTES

1. In his article “*Petrarchismo*” in the *Enciclopedia Treccani*.—The best one-volume survey of Petrarchism, motivation, meaning, critical bibliographies, texts, now is Carlo Bo’s carefully edited anthology *Lirici del cinquecento*, Milano, Garzanti, [1945].
2. 2 v. Lyon, Universite de Lyon, Facultés catholiques, 1902–1903. The particular merit of this work is that it synchronizes Italian and French collections according to the year of publication, allowing a quick survey of sonnet-writing at any given period. Many of the titles do not refer to sonnets, but if a work contains some poems in that form, it is listed, e.g. various editions of Tasso’s *Gerusalemme liberata* with dedicatory sonnets only.
3. The compiler of the first two volumes of the *Rime diverse*, “Il dotto e buon Domenichi,” as Bernardino Daniello addresses him in a sonnet on the last page of the above-mentioned book of *Rime*.
4. “*Quelques ungs voyans que je finissoy’ ou m’efforçoy’ de finir mes sonnetz par ceste grace qu’entre les aultres langues s’est faict propre l’epigramme françois, diligence qu’on peult facilement recongnoistre aux oeuvres de Cassola Italien, disent pour ceste raison que je l’ay immité, bien que de ce temps la il ne me feust congneu seulement de nom, ou Apollon jamais ne me soit en ayde.*” (Joachim du Bellay in his preface to the second ed. of the *Olive* [Paris, Gilles Corrozet, 1550].)
5. A. F. Johnson, *The Italian Sixteenth Century* [in series “Periods in Typography”], London, E. Benn, 1926, p. 17.
6. In a letter to Scipio Gonzago, written in 1584, seven years after Gabriel’s death. Cited by Walter Nachod in “*Gabriel Giolito*,” *Zeitschrift für Bücherfreunde*, XXII (1930): 97.

7. Salvatore Bongi, *Annali di Gabriel Giolito de' Ferrari* [in series “Indici e cataloghi,” XI], Roma, Principali librai, 1890–1895, 2 v., Introd., p. lxxxii. Bongi’s work is by far the most complete and reliable on Giolito.
8. “A lui [Bembo], come più tardi al Della Casa, pareva che Dante avesse usato voci *rozz e disonorate*, che avesse voluto dire ciò che ‘dire acconciamente non si potea’.” Francesco Flamini, *La varia fortuna di Dante in Italia* [in series “Lectura Dantis,” no. 97], Firenze, Sansoni [1947], p. 21. This observation introduces Bembo, the purist.
9. *Il cinquecento*, Milano, Vallardi [1901], pp. 410–411.
10. The obliterations appear in the copy belonging to the University of Pennsylvania Library.
11. Cf. the seventh regulation of the *Index librorum prohibitorum*, which came out for the first time in 1549: “Libri, qui res lascivas, seu obscoenas ex professo tractant, narrant, aut docent, cum non solum fidei, sed & morum, qui huius modi librorum lectione facile corrupti solent . . .” (Quoted from Venice 1565 ed.).
12. “. . . quasi ogni ristampa [ha] notabili mutazioni. Più componimenti son talvolta cacciati fuora dal primo luogo; e altri sostituiti in lor vece. Gli autori se n’ebbero a male, o perchè stampati senza loro consenso, e bisogno soddisfarli, o perchè loro falsamente attribuiti. Chi può indovinare le vere cagioni? Gli Stampatori potean saperle, ma ce le tennero occulte.” Giusto Fontanini, *Biblioteca dell’eloquenza italiana*, con le annotazioni del Sig. Apostolo Zeno, Venezia, G. Pasquali, 1753, v. II, p. 61. [Bongi, *Annali*, quotes frequently and at length from Zeno’s notes.]
13. No less than thirteen editions of the *Canzoniere* were prepared by Dolce for Giolito.
14. Other theorists who appear as Petrarchists in the *Rime diverse* series are, besides Bembo, Daniello, Minturno, Varchi, Speroni, Trissino, etc.
15. These poets are appropriately grouped by J. Vianey (*Le pétraquisme en France au XVI^e siècle*, Montpellier, 1909, p. 192ff.) under “Le retour à la préciosité du quattrocento.”
16. Certain authors who were present in 1545 only, do not appear on the list: Antonio Cavallino [2 poems], Aurelio Solico [2], Antonio Corradi [1], Anton Maria Braccioforte [5], ? Clario [13], Girolamo Fracastoro [2], Luigi Cassola [4], Vittoria Colonna [4], and ten others, none of whom had more than four poems in the 1545 ed.

The Lord's Prayer is Printed in London

CHARLES C. BUTTERWORTH*

SOME years ago, had I been asked when the Lord's Prayer was first printed in English, I no doubt would have replied, "I suppose it was when Tyndale printed his Gospel of St. Matthew at Cologne about the year 1525." After a while, however, I discovered that two Latin editions of the Primer, or Book of Hours, published in 1523, each contained an English version of the Pater Noster. This seemed a noteworthy fact and accordingly it was discussed in my book, *The English Primers*, which has only recently appeared.¹ In this connection I wrote, "These two are probably the earliest printings of the Lord's Prayer in English."

But alas, the spirit of investigation will not let us rest; I find now my verdict was a little premature! Touchstone says, "Much virtue in 'if'"; and perhaps there is some saving grace in that word "probably"; at any rate I must take from it what consolation I can. For meanwhile there has come to my notice an obscure little volume of eighteen leaves which not only gives the Pater Noster in an English version but dares to announce that fact in the course of its long and discursive title:

¶Here begynneth a ryght profytable treatyse compendiously drawen out of many & dyuers wrytynges of holy men/to dyspose men to be vertuously occupied in theyr myndes & prayers. And declared the Pater noster. Aue. & Credo. in our moder tonge with many other deuoute prayers in lyke wyse medefull [sic] to religyous people as to the laye people with many other moost holsomest Instruccyons/ as here after it shall folowe.

And when was this little booklet published? It was printed by Wynkyn de Worde about the year 1500 in London. On account of its rarity some notice of it here may not be unacceptable.

Only five copies are known to survive: two in the United States —one in the Folger Shakespeare Library, the other in the Rosenwald Collection in the Library of Congress; and three in England —one at Exeter College, Oxford (lacking two leaves), another at the University Library in Cambridge, and the third at Bamburgh

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castle within sight of Lindisfarne. The Cambridge copy, however, was reprinted in an excellent facsimile edition in 1905.²

The booklet has no colophon, nor is there properly any title-page, the title standing at the head of the first page of text (fol. a2). But there are a few cuts which suffice to identify the printer and to delimit the date of publication. One is a small woodcut of St. Jerome, which stands alone on the first page; while on the reverse thereof is a full-page cut of the Crucifixion, which appears again as the last page of the book (fol. c6^v). There is also a small foliate printer's device (fol. c6) belonging to William Caxton, which De Worde is known to have used.³ From the state of these cuts the year 1500 is deduced as the date of publication. For instance, in a book of De Worde's dated 1501 (*S.T.C.* 281), the same cut of the Crucifixion is used but seems noticeably more worn.

The work was evidently intended for the guidance and edification of those, especially women, who were newly entered into religious orders; and since nuns were usually not so familiar with Latin as were their religious brethren, it was deemed suitable to write for them in English. The author of this little treatise, who acted as compiler and translator, is named in a passage at the end of the book (fol. c5^v) which reads:

¶Praye for your broder Thomas Betfon [*sic*] which for your soules yt be come or shall come in to relygyon/ drewe and made the contentes of this lytell quayer [i.e., *cahier*, *quire*] & exhortacion. necessary & nedefull to them that ben come & shall come to relygyon.

This is followed by what seems to be the beginning of some familiar formula warning the sisterhood to take good care of their books—"¶Lerne to kepe youre bokes cleue &c. [*sic*]"—with which the volume closes.

It is now generally agreed that the author's name was probably Thomas Betson.⁴ But it is not known who he was; for it is by no means sure that he was the same Thomas Betson who wrote several letters to the Stonor family and who was employed as a partner of William Stonor in the wool trade during the 1470's. For this Thomas was married to Katherine Rich in 1478 and died in 1486.⁵ Any son of his by this marriage would barely have been of age by 1500. It is possible, of course, that the treatise may have been compiled some years before it was printed; it is even possible

that Caxton may have brought out the booklet in an earlier imprint now lost. But the tenor of the text would indicate that the writer was deeply concerned with the welfare of those who had “come to relygyon”; and it is a plausible inference from his use of the term “your broder” that this Betson was himself a member of some religious order. The earlicr Betson, on the other hand, seems to have been a pious and industrious young man, often absent on business trips and at times in residence at Calais.

Below the title (fol. a2) the booklet commences with a brief rendering of the “Three Verities” of John Gerson, headed:

¶The famous doctour Iohan gerson Chaunceler of Parys/ takynge his grounde of holy scrypture. & accordynge with all other doctours sayth thus.

This item, keyed to the mood of self-examination and confession, extends to the bottom of the reverse side of the leaf. The next leaf (fol. a3) contains the Pater Noster, Ave Maria, and Creed, all in English, as announced in the title of the book.

The rest of the volume is given over to prayers and specific instructions for young votaries, drawn from the writings of St. Bernard and St. Jerome and others, together with traditional lists of the seven sins, four cardinal virtues, seven sacraments, etc. It is noteworthy that where the Ten Commandments are treated (fol. a4^v) they are not translated from the Bible text but are given only in summary with brief comments.

The version given of the Lord’s Prayer⁶ is in many ways similar to those found in manuscripts current in the fourteenth and fifteenth centuries, yet it has distinctive touches of its own, showing that there was no standard version in those days. It reads as follows:

¶This Pater noster/ taught our Lorde his dysciples/ and all people by his gospell.

Fader our that art in heuens/ halowed be thy name. Thy kyngdom come to ye. Thy wyll be do as in heuen so in erthe. Our eche dayly brede gyue vs to daye. And forgyue vs our dettes ryght as we forgyue to our dettours. And lede vs not in to temptacyon. But delyuer vs from euyll Amen/ that is to saye. So be it.

The rendering, “Thy kingdom come to thee,” while unusual, is not unique: it occurs also in a small manuscript Primer of about 1400; while another manuscript of about 1410 reads, “thy rewme

[i.e., *realm*] come to thee.”⁷ The expression, “Our each daily bread,” is, however, very unusual; the terminology more commonly in use was “Our each day’s bread.” Also I know of no other version which uses the turn of speech “right as we forgive” in speaking of our debtors. The usual wording here was simply *as*, or sometimes we find *even as*, or *like as*.

In offering his rendition of the Ave Maria, Betson likewise calls attention to the fact that it is taken from the Gospel; he writes:

¶This is the Aue maria/ that Gabryell sayd salutynge our blesyd lady/ & it is the gospell.

Heyll Mary full of grace/ the lorde is with the/ blesyd be thou amonge wymen/ & blesyd be the fruyte of thy wombe Ihesus. Amen.

It is evident, of course, that even this was not translated from the Gospel directly but rather from the traditional *Ave* which combined the words of Gabriel with those of Elizabeth (Luke 1: 28, 42). Yet it is not without interest that our author is so scrupulous in adducing the authority of Scripture not only for these well-known passages—the *Ave* and the Lord’s Prayer—but also for the selection taken from Chancellor Gerson, of whom he says that he took “his grounde of holy scrypture.”

This touches upon the controversial question, To what extent would the English Church allow the text of Holy Scripture to be published in translation during the period from 1408 to 1534? Little objection was raised, it would seem, to occasional quotation from the Bible in support of a sermon or religious treatise, as, for example, in the Parson’s Tale of Chaucer. But it was assumed that in such instances the text would be carefully and traditionally interpreted. It seems also likely that the restriction upon printing any portion of the Bible in English was somewhat less severe before the influence of the Lutheran Reformation made itself felt in England during the early 1520’s. Nevertheless, to judge from such evidence as is available, it is a fact that, apart from such spasmodic citation of the Bible as might occur in homily or sermon, there is very little actual use of passages from the Bible in an English version in such books as were printed before 1520.

Prior to 1500, it is true, we have in the *Golden Legend* of Caxton (1483) considerable portions of the Pentateuch in an English

version, but these appear without any distinguishing mark to set them off as Scripture; and we have also in the same volume Caxton's significant declaration at the head of his *Life of David* (fol. 68^v):

Here foloweth how Dauid regned after Saul/ & gouerned Israhel/ shortly taken out of the bible the most historyal maters and but litil towched.

Yet Caxton does not, in fact, present his Bible stories intact; not only are they a "litil towched," they are also interspersed at times with materials drawn from the "doctors" of the Church.

In another of Caxton's publications, *The Myrroure of the blessed lyf of Jhesu Chryste* (1486), translated by Nicholas Love, we find a chapter headed "¶Of that excellent Sermon of oure lord Jhesu made in the hylle" (fol. g3^v), but no text of the Pater Noster is given. Instead we are told (fol. g5):

But for as mykel as this matere is spoken of in many other tretees [i.e., *treatises*] and booke bothe in latyn and in Englisshe. & this prayer suffyciantly expouned [sic]/ therfor we passen ouer more shortly at this tyme herof.

But again, it is the exposition, rather than the text, of the Prayer that is reported to have been available "bothe in latyn and in Englisshe."

For a last example, in Pynson's printing of the elaborate dialogue of *Dives and Pauper* (1493), we have numerous scattered quotations from the Bible and, at one point (fol. a6^v), the whole of Solomon's prayer for a competency of living (Proverbs 30: 7-9), a favorite item in the later Primers. It is rendered as follows:

Beggerye he sayth & riches ne yeue [i.e., *give*] thou nat to me/ yeue thou only to my lyuelode [i.e., *livelihood*] nedeful thinges Lest perauen-
ture/ I fulfylled be drawen to denye and sey who is the lorde/ And
through nede constreyned stele/ & forswere the name of my god.

Yet even here, wooden as the version is, it is carefully preceded by the Latin text of the Vulgate and carefully expounded.

It may be said, then, that the very scarcity of such Scriptural passages in the publications of early English printers argues that they stood much in awe of the attitude of the prelates of that day. Certainly there was greater freedom for the circulation of vernac-

ular Scriptures on the continent of Europe than there was in England. Stirred by the activity of Wycliffe and his Lollards, the English clergy were watchfully jealous lest any wrong interpretations should enter in through printing the bare text of the Bible without comment, and this attitude acted as a constraint upon the printers. It is this fact, particularly, which makes Betson's little treatise of more than passing interest, for in it he dared to offer the Pater Noster in his mother tongue and even to specify that he was doing so in the title of his booklet.

NOTES

1. *The English Primers (1529–1545), Their Publication and Connection with the English Bible and the Reformation in England*, Philadelphia, 1953, p. 8.
2. This is one of a series of facsimiles of incunabula issued by the Cambridge University Press. The collation of the original volume is: a-c⁶ (18 leaves). It is recorded as follows: *Short-Title Catalogue*, no. 1978; E. G. Duff, *Fifteenth Century English Books*, no. 43; *Gesamtkatalog der Wiegendrucke*, no. 4190; Dibdin, *Typographical Antiquities*, II, 323; Johnson, *Typographia*, I, 358; Sayle, *Early English Printed Books*, no. 59; H. S. Bennett, *Chaucer and the Fifteenth Century*, p. 265.
3. For Caxton's device, see McKerrow, *Printers' and Publishers' Devices*, no. 10b. For the cut of St. Jerome, see Hodnett, *English Woodcuts*, no. 356; and of the Crucifixion, *ibid.*, no. 374 (plate 19). Concerning the latter, specific details are given in Duff, *Printers, Stationers and Bookbinders of Westminster and London*, p. 27.
4. The *Gesamtkatalog* transcribes the name as *Betfon*, but lists it under *Betson*. Dibdin cites a note from Herbert giving the author's name as "Thomas Betton." The Cambridge editor decides in favor of *Betson*; and Miss Elizabeth Mongan informs me that in the Rosenwald copy the letter is decidedly like a long *s*.
5. See the preface to *Stonor Letters and Papers*, edited by C. L. Kingsford, London, 1919, 2 v. Betson's charming letter to his girlish fiancée (June 1476) is included in the *Oxford Book of English Prose*, p. 39.
6. Until about 1534 the Lord's Prayer went under the title of Pater Noster even when rendered in English. See the writer's article, "The Term 'Lord's Prayer' Instead of 'Pater Noster,'" in *The Library Chronicle*, XVIII (1952):34.
7. See G. A. Plimpton, *The Education of Chaucer*, 1935, p. 19; and W. Maskell, *Monumenta Ritualia* (edition of 1882), III, 180.

The Bloomfield Moore-Monroe Manuscripts

THOMAS R. ADAMS*

“WHERE did we get that?” Such questions are not infrequent in a library as old as the University of Pennsylvania’s. Resting in its stacks are many volumes that arrived unnoticed, their importance having long escaped recognition. The resources of any large research library include many books and manuscripts that are, at least for a time, “lost” to scholarship. Because they have not received the “benefit” of book trade publicity they come to light only when somebody stumbles over them. However, when the librarian is ready to publicize one of these “finds” he is also interested to trace its provenance. The University of Pennsylvania Library recently re-discovered a “lost soul” and plunged into a problem that proved to be as engaging as the find itself.

A few months ago we received a request for photostats of some Andrew Jackson letters that we were supposed to have. A check in our manuscript catalogue showed that such a group of letters was indeed in the Library, located in the Monroe Papers. The only trouble with this information was that there was no indication on the catalogue card as to the location of the Monroe Papers. Until recently our manuscripts led a relatively neglected life. No department of the library had been consistently responsible for their care, arrangement and recording. They had been arranged, catalogued and stored in a variety of ways. After a thorough search we finally were forced to the embarrassing admission that we could not find the Jackson letters.

Elusive books are one of the more maddening things with which a librarian has to deal. They seem to behave as if they knew they were wanted and have decided to stay hidden. It was not surprising, therefore, that within a month or two after we had given up the search there appeared on the shelves, safely stored away, a thick folio with the spine title *Monroe Administration—Letters*. A cursory inspection showed that this was indeed the collection that we had been looking for; however, it was much more.

* University of Pennsylvania Library.

The Jackson letters were only clerks' copies, but letters of James Monroe, John Quincy Adams, and John C. Calhoun were auto-graph letters signed, or letters written for and signed by them. Clearly the whole volume warranted a closer inspection.

A day's study showed that this was not, as we had hoped, a great find of unknown source material. On the contrary almost all of it had been published almost as soon as it had been written. The volume contained the manuscripts of some of the House Documents of the first session of the Seventeenth Congress that sat from 1821 to 1822. These were, in some cases all and in some cases only parts of, twenty-eight of the thirty-eight messages of President Monroe to this Congress; they were a part of the series of one hundred and thirty-four House Documents printed for Congress by Gales and Seaton. To accompany these messages the various executive departments prepared for transmission to Congress copies of the documents in their possession that pertained to the message and retained the originals in their own archives. Therefore except for the letters of transmittal, the manuscripts in this volume are all clerk's copies. These letters of transmittal were, however, signed by the President or the Cabinet Officer concerned. After the messages had been read and appropriate congressional action had been taken, they were sent to the public printer. Apparently Congress made no effort to recopy, but sent the actual documents. Many of the manuscript pages bear pencil notations made in the printing shop, for they coincide with the pages and signatures of the printed documents.

The Seventeenth Congress has been described as ". . . one of the most ineffective legislative bodies in the nation's history."¹ This may well be the case when looked upon in relation to the historical development of the United States. However, when judged from the less elevated position of this single volume, one is impressed with how much of importance was accomplished even by an "ineffective" Congress. Its work laid foundations for the deeds of later Congresses that are more highly esteemed.

Three of the messages of the President, including the annual message, were devoted to the problems surrounding recognition

¹ W. P. Cresson, *James Monroe* (Chapel Hill: The University of North Carolina Press, [1946]), p. 455.

of South American republics. Before Congress would appropriate the money necessary to carry the recognition into effect, it requested that all the information at the disposal of Secretary of State, John Quincy Adams, be laid before it. Looking at the copies of documents sent from the Secretary of State's office we realize how much simpler it must have been to run our government one hundred and thirty years ago. All of the documents were, of course, copied by hand. In many cases however, the Secretary himself certified to the accuracy of the copy. Knowing the methods of John Quincy Adams, we can be sure that this was not done perfunctorily. Indeed many of the copies contain his own careful corrections.

The Andrew Jackson letters were part of a series of reports on conditions in the newly purchased Florida territories. General Jackson had been appointed governor and was conducting affairs in his usual colorful fashion. He had jailed the former Spanish governor, José María Callava, in a dispute concerning a land title. Strong partisan feeling centered about the General, and Congress was eager to hear of any incidents in which he played a part. Other matters that claimed the attention of Congress were questions arising from the titles to Indian lands and the adjustment of difficulties resulting from the Treaty of Ghent of 1815.

The most notable single document in the volume is the manuscript of the President's veto of the Cumberland Road Toll Gate Bill. In 1806, under pressure from western members, Congress had passed the Cumberland Road Bill. Beginning at Cumberland, Maryland, the road was to run through Virginia, Pennsylvania, Ohio, Indiana, and Illinois to Jefferson City, Missouri. In the end, however, it only got as far as Vandalia, Illinois. The history of the Cumberland Road was closely related to the political struggle between the strict constructionists of the Constitution and the loose constructionists, particularly westerners like Henry Clay who wanted the Federal Government to expand its functions to play a larger role in the national life.

By 1822 the completed sections of the road were in dire need of repair, and Congress authorized \$9,000 for this purpose. To pay this bill they empowered the President to erect gates along the road and to collect tolls. This, the President felt, extended federal

control too far. He had always questioned the propriety of the Federal Government's part in the project, in spite of the fact that due provision had been made for the consent of the states through which the road was to pass. The new bill, however, implied the power to regulate and therefore the power ". . . to adopt and execute a complete system of internal improvements." This the President could not agree to without an amendment to the Constitution.

It had been many years since an American President vetoed an act of Congress on the grounds that it was unconstitutional. There had been a time when presidents felt that the oath to ". . . preserve, protect, and defend the Constitution . . ." implied the responsibility to examine the acts of Congress as an interpreter of the Constitution. The questions surrounding the national policy of internal improvements and in particular the Cumberland Road had long troubled Monroe. As early as 1819, he had set down some of his ideas for presentation to Congress but had been deterred by his Cabinet. The passage of the Toll Gate Bill gave him an opportunity to apprise Congress of his thinking on the whole question of internal improvements. At the end of the relatively short veto message of May 4th he says: "Having stated my objections to the bill, I should now cheerfully communicate, at large, the reasons on which they are founded, if I had time to reduce them to such form as to include them in this paper. The advanced stage of the session renders that impossible. Having, at the commencement of my service in this high trust, considered it a duty to express the opinion, that the United States do not possess the power in question . . . I have occasionally committed my sentiments to paper, respecting it. The form which this exposition has assumed, is not such as I should have given it, had it been intended for Congress, nor is it concluded."

The document that was delivered to Congress was indeed a hastily prepared one. The handwritings of at least two clerks are apparent and the one hundred and four pages of foolscap are filled with deletions, additions and interlinear corrections, many in the President's own hand. This was the longest message that Monroe sent to any Congress and, unfinished as it might have been as a state paper, it achieved its end. The bill did not pass over the veto. Later on Congress passed another bill to provide

for the repair of the road, but this second effort avoided the assertion of federal power.

What we discovered then, was a large group of documents that played an essential part in that developing complex of relations between the legislative and executive branches of our government. How did they get from Washington to Philadelphia and into the University of Pennsylvania Library? After a great deal of searching we found that we could only begin to answer the first question, although the answer to the second was easy. Our experience may be considered typical for the type of problem confronting librarians and scholars handling manuscript source materials.

The first step was, of course, to look at the volume itself. The book-plate provided us with the first lead. It was a regular University of Pennsylvania Library book-plate but with the additional legend: "The Bloomfield Moore Library." This library, we discovered, had a peculiar history. The University received it sometime between 1880-1890. During those years the title to the books was not clear; therefore the whole collection was locked away in the then "new" library building. It was not until 1899 that full title to them was received and the books were brought out to be used. In that year Bloomfield H. Moore's widow, Clara Jessup, died. The son, Charles B. Moore, became the sole heir of his father's library, and he at once presented the whole collection to the University.

The creator of the collection, Bloomfield Haines Moore, was a Philadelphia citizen of prominence during the latter half of the nineteenth century. Born in 1819 of an old New Jersey family, he was brought to Philadelphia at an early age. He was orphaned at seven years of age and a friend of the family, Jacob Ridgeway, became his guardian. Moore received a Friends education at the school of Isaac Taylor and Thomas Conrad and later at Clermont Academy. Upon graduation he entered the shipping firm of his guardian where he remained until Ridgeway's death in 1843. In 1842 Moore married Clara Jessup, the daughter of Augustus E. Jessup of Massachusetts. With the legacy left him by Ridgeway, Moore joined his father-in-law in establishing a paper business in Philadelphia under the name of Jessup and Moore. The business expanded and flourished throughout the nineteenth

century with various Jessups and Moores at its head. Moore himself succeeded his father-in-law as the president and held that position until his death in 1878.

About the time of the Civil War, Moore's fortunes had improved to the point where he felt he could take part in the cultural life of the city. Although his interests covered many institutions, such as the Academy of Natural Sciences and the Historical Society of Pennsylvania, his most prominent work was done for the Franklin Institute where he served on the Board of Managers from 1863 until his death. He also developed a grasp of economic affairs that resulted in the writing of pamphlets and articles on such subjects as the tariff question. During these years he assembled a library on political economy that numbered 3,444 bound volumes and 1,078 unbound pamphlets. It was this library that came to the University of Pennsylvania and in which the Monroe manuscripts were found.

It is not possible from what we know of Moore's life to determine exactly when or how the volume came into his possession. However, there are some leads that will permit fairly sound guessing. The book is bound in half black morocco with marbled boards and end papers, apparently a rather costly piece of work. Both the binding and the lettering on the spine are in the same style as some other volumes from his library. It is not unreasonable, therefore, to assume that Moore received the manuscripts loose and had them bound. This assumption is supported by the fact that bound in the front are two sheets that appear to have been used as wrappers for the documents when they were loose. On one of these is the manuscript notation shown in the cut. Although it is difficult to determine just what the last initial is, it is clear that it was written by someone as an instruction for the delivery of the manuscripts to Moore. This delivery must have taken place after 1843, when Jessup and Moore was established. The "charge" also suggests that Moore purchased the manuscripts probably from the J. W. (?) appearing in the notation. If we could determine whose initials these are, a vital gap in our story could be filled. However, all it tells us is that sometime after 1843, someone was in a position to send the manuscripts to Moore, probably after selling them to him.

*Send to
B. H. Moore
Care Joseph Moore
Phil*

*charge
J. H.*

The documents provide internal proof that they were still in Washington in 1833. One of the messages of President Monroe to the Seventeenth Congress was never published as a House Document. It was a report on the defenses of Mobile Bay. In the letter of transmission he particularly asks that the report not be printed. Congress complied but did print the letter of transmittal in the House Journal. Our volume contains this letter of transmittal. Following it are two letters from an army officer in the War Department to the Office of the Secretary of the Senate, dated 9th and 10th of July 1833. In these, permission is denied to print the report on Mobile Bay in the forthcoming compilation of American state papers by Gales and Seaton. If we may assume that the contents of this volume have always been kept together, then we can be sure that they were still in Washington as late as 1833. More guesses might be made, but at present there is no evidence to support any other than those just set down.

This is yet another example of how collectors play a vital part in preserving the records of our past. During the early 19th century the Federal Government was often careless with its archives. There are stories of clerks selling whole roomsfull of papers to junk dealers. Today this type of document is kept safely in the National Archives or the Library of Congress. However for the preservation of many of our early documents, we must thank the Bloomfield Moores.

A calendar of these papers, based on the printed documents, has been prepared and is available in the files of the Rare Book Collection of the University of Pennsylvania Library.

LIBRARY NOTES

Announcement:

Mr. Lessing J. Rosenwald has been elected President of the Friends of the Library succeeding Mr. Edwin Wolf 2nd.

Friends Purchases

During the present academic year the following titles were purchased from funds provided by the Friends of the Library: *The Life and Strange Surprising Adventures of Robinson Crusoe*, 4v. London, 1719-1720, and *The Fortunes and Misfortunes of the Famous Moll Flanders*, London, [1722]. These items fill two important gaps in the Singer-Mendenhall Collections.

The Rare Book Collection is pleased to announce that it is preparing a checklist of its holdings of English fiction.

Remarks on the General University Collections

The growth of the University libraries must appear to many of our users "progress by accident." Perhaps we are growing like Topsy, but such an admission is made with reservations.

In many fields our purchases are governed by an as yet unwritten but deliberate policy of building on strength, of remedying obvious omissions and of purchasing such current publications as appear essential for the educational and research program of the University. Much of the initiative rests by necessity with members of the faculty who are aware of needs and able to judge the relevance of old and new publications. But a library staff satisfied to play a merely passive role in the building of collections would hardly be worth its salt. Actually, the best results are achieved through three-way cooperation of faculty, the staff and the Friends of the Library. In most fields this is achieved.

Dr. Baugh has over many years built an excellent collection of manuscript catalogues. Last summer the Library purchased important additions, particularly those pertaining to continental European collections. They were offered for sale by a London dealer who had acquired the bibliographical apparatus formerly in the library of the Prince of Liechtenstein.

Thanks to the Lea bequest and the efforts of several outstanding mediaevalists on our faculty our primary sources as well as our critical apparatus in most aspects of mediaeval studies are more than adequate.

Efforts have recently been made to fill in sections which were not up to standard; for example, Italian local history and source materials essential to the study of central Europe.

Musser Memorial

Although the late Dr. Paul H. Musser is best remembered as Provost and later as Chairman of the University, his memory is cherished by many of his colleagues for his interest in the literature of the American West. In appreciation of this interest his friends have provided funds to build a Bret Harte collection as a memorial to Dr. Musser. At present thirty-eight of Harte's fifty-nine publications have been acquired and placed in the Rare Book Collection. They include his first book *The Lost Galleon and Other Tales*, San Francisco, 1867; *Poems*, Boston, 1871, and *Tales of the Argonauts*, Boston, 1875.

Various Gifts

Hardly any issue of *The Library Chronicle* appears without acknowledgment of our indebtedness to MR. T. EDWARD ROSS. It is with gratitude that we now record his latest donation, *The Order for Morning and Evening Prayer . . . Collected and Translated into the Mohawk or Iroquois Language*, [Quebec] 1780. This edition is probably the first printing in the Canadian provinces of any liturgical book of the Church of England.

The following list of gifts of the past few months presents a partial picture only:

Our collection of Americana has been enlarged by various donors. SEYMORE ADELMAN presented as his annual Christmas gift an extensive collection of American literary manuscripts and American history. WILLIAM H. CRAMER added a group of playbills and similar material from the Chestnut and Walnut Street theaters, and a number of nineteenth century books about the Philadelphia literary scene were given by HOWARD S. MOTT. RAYMOND A. SPEISER continues to add to the collection of American plays started by his father; CORNELIUS WEYGANDT presented us with early nineteenth century American literature, and HARRIET SPRAGUE added a number of items to our Whitman Collection.

JOHN W. TOWNSEND, JR., gave us a fine collection that includes some illustrated books of the eighteenth century, and ROBERT E. GARRETT donated a collection of first editions of Sir Walter Scott and other literary items.

DR. FERNBERGER, of the Department of Psychology, continues, as in previous years, to transfer to the University selected volumes from

his own private library. This year's gift consisted of 406 monographs and 29 volumes of psychological journals.

The Edgar Fahs Smith Memorial Collection was enriched by eight rare volumes on alchemy and magic, a gift of CHARLES B. ALEXANDER, who also placed a Hebrew scroll in the Rare Book Collection. These volumes originally belonged to Mr. Henry E. Starr and Mr. E. Percival.

Late in 1952 DR. KRUMBHAAR transferred the second installment of his private collection of Elzevir imprints to the Rare Book Collection. He has accepted the responsibility of advising the University Library in the acquisition of specimens not now in his or our collection.

